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To:	From:
Sarvamangala Devi	Beverly Shears
Location: REM 3C18/3B07	Location: Remsen Bldg. RM 1A54
Art Unit: 1645	Phone: 571-272-2528
Friday, March 26, 2004	beverly.shears@uspto.gov
Case Serial Number: 10/048146	

Search Notes

Shears, Beverly

From: Devi, Sarvamangala
Sent: Wednesday, March 24, 2004 8:42 AM
To: Shears, Beverly
Subject: 10/048,146

Beverly:

Please perform a sequence and an interference search for SEQ ID NO: 2, 4, 6 and 7, and an at least three amino acid-long fragment thereof in application 10/048,146.

Please perform a text search for TS-14 (a 14 kDa polypeptide), TS-18 (a 18 kDa polypeptide) and TSRS-1 (a 21 kDa polypeptide) larval ?protein antigens or polypeptides of Taenia solium (tape worm).

Please perform an inventors' name search: Victor C.W. Tsang; Ryan M. Greene; Patricia P. Wilkins; Kathy Hancock.

Thanks.

S. DEVI, Ph.D.
AU 1645
Rems - 3C18/3B07

Date completed: 03-25-04
Searcher: Beverly c 2528
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Elapsed time: _____
CPU time: _____
Total time: _____
Number of Searches: _____
Number of Databases: 3

Search Site
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Type of Search
_____ N.A. Sequence
_____ A.A. Sequence
_____ Structure
_____ Bibliographic

Vendors
_____ IG
✓ STN
✓ Dialog
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_____ Geninfo
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_____ DARC/Questel
✓ Other CGN

PTO-1590 (9-90)

Devi, S.
10/048146

01.25.02
37107 8.3.00
Spow. 8.5.99

25mar04 12:19:05 User219783 Session D2004.2

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File 65:Inside Conferences 1993-2004/Mar W3
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Set	Items	Description
S1	100	TS14 OR TS18 OR TS(W)(14 OR 18) OR TSRS1 OR TSRS(W)1
S2	8751	14KD? OR 18KD? OR 21KD? OR (14 OR 18 OR 21)(5N)(KD? ? OR K-ILOD? OR KILO(W)(DA OR DALTON? ?))
S3	32	(S1 OR S2) AND (SOLIUM OR TAPEWORM? ? OR TAPE(W)WORM? ?)
S4	26	RD (unique items)

-key terms

>>>No matching display code(s) found in file(s): 65, 113

4/3,AB/1 (Item 1 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
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16398415 Document Delivery Available: 000183466200049 References: 48
TITLE: Characterization of the 8-kilodalton antigens of Taenia **solium** metacestodes and evaluation of their use in an enzyme-linked immunosorbent assay for serodiagnosis
AUTHOR(S): Hancock K (REPRINT); Khan A; Williams FB; Yushak ML; Pattabhi S; Noh J; Tsang VCW
AUTHOR(S) E-MAIL: khancock@cdc.gov
CORPORATE SOURCE: Ctr Dis Control & Prevent, Div Parasit Dis, Bldg 23,Room 1001,Mail Stop F-13,4770 Buford High/Atlanta//GA/30341 (REPRINT); Ctr Dis Control & Prevent, Div Parasit Dis, /Atlanta//GA/30341
PUBLICATION TYPE: JOURNAL
PUBLICATION: JOURNAL OF CLINICAL MICROBIOLOGY, 2003, V41, N6 (JUN), P 2577-2586
GENUINE ARTICLE#: 688ZB
PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA
ISSN: 0095-1137
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: The Western blot for cysticercosis, which uses lentil lectin purified glycoprotein (LLGP) antigens extracted from the metacestode of Taenia **solium**, has been the "gold standard" serodiagnostic assay since it was first described in 1989. We report that the diagnostic antigens at **14**, **18**, and **21 kDa**, as well as some larger disulfide-bonded antigens, are actually all members of a very closely related family of proteins, the 8-**kDa** antigens. The genes for **18** unique, mature proteins have been identified. Nine of these were

chemically synthesized and tested in an enzyme-linked immunosorbent assay with a battery of defined serum samples, including 32 cysticercosis-positive serum samples reactive with the 8-kDa antigens of LLGP on Western blotting, 34 serum samples from patients with other parasitic infections, and 15 normal human serum samples. One of the 8-kDa antigens, **TsRS1**, is 100% sensitive and 100% specific. **TsRS1** will be one component of a cocktail of three to four synthetic or recombinant antigens, based on the diagnostic bands of the Western blot, which will be used for the serodiagnosis of cysticercosis.

4/3,AB/2 (Item 2 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

15540340 Document Delivery Available: 000180612300008 References: 18
TITLE: Taenia saginata derived synthetic peptides with potential for the diagnosis of bovine cysticercosis
AUTHOR(S): Ferrer E; Benitez L; Foster-Cuevas M; Bryce D; Wamae LW; Onyango-Abuje JA; Garate T; Harrison LJS (REPRINT); Parkhouse RME
AUTHOR(S) E-MAIL: leslie.harrison@ed.ac.uk
CORPORATE SOURCE: Univ Edinburgh, Dept Trop Anim Hlth, /Roslin EH25 9RG/Midlothian/Scotland/ (REPRINT); Univ Edinburgh, Dept Trop Anim Hlth, /Roslin EH25 9RG/Midlothian/Scotland/; AFRC, Pirbright Lab, /Woking GU24 ONF/Surrey/England/; Inst Salud Carlos III, Ctr Nacl Microbiol, /Madrid 28220//Spain/; Kenya Agr Res Inst, Natl Vet Res Ctr, /Kikuyu//Kenya/; Gulbenkian Inst Sci, /Oeiras//Portugal/
PUBLICATION TYPE: JOURNAL
PUBLICATION: VETERINARY PARASITOLOGY, 2003, V111, N1 (JAN 20), P83-94
GENUINE ARTICLE#: 639DL
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
ISSN: 0304-4017
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Immunity in Taeniids is predominantly antibody mediated and thus many serological immunodeterminants will have potential in both protection and diagnosis. The antigenicity of six peptides derived from four potentially protective molecules cloned from a Taenia saginata oncospheres cDNA library have been evaluated as targets for the specific diagnosis of bovine cysticercosis. The six peptides consist of: two peptides (HP6-2 and HP6-3) derived from the sequence of the **18 kDa** surface/secreted oncospheral adhesion antigen identified by McAb-HP6, two peptides (Ts45W-1 and Ts45W-5) derived from the sequence of the T. saginata homologue of the T. ovis 45W protective gene family, one peptide (TS45S-10) derived from a T. saginata sequence with significant similarity to the T. ovis 45S protective antigen, and one peptide (TEG-1) derived from the sequence of the T. saginata homologue of Echinococcus spp. main surface protein. Longitudinal studies indicate that T. saginata infected cattle respond to all six peptides by 3-4 weeks post-infection and that the antibody levels remain high for at least 12 weeks post-infection. As protection against Taeniid parasites is predominantly antibody mediated, some of these six peptides may be of value as immuno-prophylactic tools and hence also in assays to determine resistance to infection with the parasite. For diagnosis, on the other hand, only three peptides (HP6-2, TEG-1 and Ts45S-10) performed with the necessary sensitivity and specificity to determine exposure to infection with T saginata, and now merit an

exhaustive evaluation prior to employment as routine diagnostic tools.

4/3,AB/3 (Item 3 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

14288138 Document Delivery Available: 000176685300003 References: 25
TITLE: Excretory/secretory antigens (ES) from in-vitro cultures of Taenia crassiceps cysticerci, and use of an anti-ES monoclonal antibody for antigen detection in samples of cerebrospinal fluid from patients with neurocysticercosis
AUTHOR(S): Espindola NM; Vaz AJ (REPRINT); Pardini AX; Fernandes I
AUTHOR(S) E-MAIL: ajvaz@netpoint.com.br
CORPORATE SOURCE: Univ Sao Paulo, Clin Immunol Lab, Av Prof Lineu Prestes 580,Bloco 17/BR-05508900 Sao Paulo//Brazil/ (REPRINT); Univ Sao Paulo, Clin Immunol Lab, /BR-05508900 Sao Paulo//Brazil/; Inst Butantan, Immunopathol Lab, /BR-05503900 Butantan/SP/Brazil/
PUBLICATION TYPE: JOURNAL
PUBLICATION: ANNALS OF TROPICAL MEDICINE AND PARASITOLOGY, 2002, V96, N4 (JUN), P361-368
GENUINE ARTICLE#: 570XG
PUBLISHER: W S MANEY & SONS LTD, HUDSON RD, LEEDS LS9 7DL, ENGLAND
ISSN: 0003-4983
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Antigens were obtained from cysticerci of the ORE strain of Taenia crassiceps, by culture of cysts in protein-free hybridoma medium (PFHM). Budding of new vesicles was observed after 24-48 h. Excretory/secretory (ES) antigens (peptides of <20 kDa) were recovered in the medium after culture for 48 h. SDS-PAGE analysis of vesicular-fluid (VF) antigens, (obtained by rupturing T crassiceps cysticerci in PFHM) and the ES antigens indicated partial homology between the two preparations. ES peptides of **18**- and **14-kDa** were recognized by polyclonal antibodies produced in rabbits immunized either with the VF antigens or with a total-antigen preparation of T **solium** cysticerci. Antibodies present in samples of serum or cerebrospinal fluid (CSF) from patients with neurocysticercosis also reacted with ES peptides. An anti-ES monoclonal antibody detected antigens in the CSF from 10 patients with neurocysticercosis, showing the antigenic homology of the ES antigens with those of T **solium** cysticerci in human infections.

4/3,AB/4 (Item 4 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

14286909 Document Delivery Available: 000176773600008 References: 47
TITLE: Evaluation of an antigen from Taenia crassiceps cysticercus for the serodiagnosis of neurocysticercosis
AUTHOR(S): Peralta RHS; Vaz AJ; Pardini A; Macedo HW; Machado LR; De Simone SG; Peralta JM (REPRINT)
AUTHOR(S) E-MAIL: peralta@micro.ufrj.br
CORPORATE SOURCE: Fed Univ Rio De Janeiro, Ctr Ciencias Saude, Bloco 1,Ilha Fundao/BR-21941970 Rio De Janeiro//Brazil/ (REPRINT); Fed Univ Rio De

Janeiro, Ctr Ciencias Saude, /BR-21941970 Rio De Janeiro//Brazil/; Inst Oswaldo Cruz, Dept Bioquim & Biol Mol, /BR-20001 Rio De Janeiro//Brazil/; Univ Sao Paulo, Ctr Invest Neurol, /Sao Paulo//Brazil/; Univ Sao Paulo, Fac Med, /Sao Paulo//Brazil/; Univ Sao Paulo, Fac Ciencias Farmaceut, /Sao Paulo//Brazil/; Univ Fed Fluminense, Dept Patol, /Niteroi/RJ/Brazil/
PUBLICATION TYPE: JOURNAL
PUBLICATION: ACTA TROPICA, 2002, V83, N2 (AUG), P159-168
GENUINE ARTICLE#: 572KN
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
ISSN: 0001-706X
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: We report here the evaluation of an antigen from Taenia crassiceps cysticercus as a potential reagent in an enzyme-immunoelectrotransfer blotting assay (EITB) and an enzyme-linked immunosorbent assay (ELISA) for the serodiagnosis of neurocysticercosis (NC) using clinical specimens obtained from patients in different phases of the disease. Serum and cerebrospinal fluid (CSF) samples from 64 patients suspected of having NC according to clinical manifestation and brain computed tomography were tested by ELISA with Taenia **solium** total saline antigen (ELISA-Tso) and by immunoblotting with T. crassiceps glycoproteins antigen (EITB-gpTcra). Forty-five serum samples were also tested immunoblotting with T. **solium** glycoproteins antigen (EITB-gpTso) and 30 were tested by ELISA with T. crassiceps **14 kDa** glycoprotein (ELISA-gp14Tcra). Serum samples from apparently healthy individuals without any parasitic disease and from patients with other parasitic diseases were included as controls' The results of ELISA-Tso analysis with CSF obtained from 64 patients with NC showed that 53 (83%) were reactive. EITB-gpTcra analysis with serum from the same group of patients showed a sensitivity of 91%. Results of EITB-gpTso and EITB-gpTcra analysis with serum samples demonstrated an agreement of 100% between both tests. ELISA-gp14Tcra was positive in 23 (77%) sera, 22 with paired CSF positive. When ELISA-gp14Tcra results were compared to EITB-Tso results, a relative sensitivity of 95% was observed. All serum samples from the control group were negative in ELISA-gp14Tcra and only one serum from an individual with Taenia saginata was reactive in this assay, showing a specificity of 99% for ELISA-gp14Tcra. This fraction was purified in only one step with a good yield for use in immunoassays. We suggest that the gp14Tcra antigen can be used for detecting anti-cysticercus antibodies in serum samples for epidemiological investigation purposes and also for diagnostic screening of NC patients.

4/3,AB/5 (Item 5 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

13926779 Document Delivery Available: 000175610300010 References: 26
TITLE: Assessment of antibody responses to antigens of Mycobacterium tuberculosis and Cysticercus cellulosae in cerebrospinal fluid of chronic meningitis patients for definitive diagnosis as TBM/NCC by passive hemagglutination and immunoblot assays
AUTHOR(S): Katti MK (REPRINT)
AUTHOR(S) E-MAIL: mkk@sctimst.ker.nic.in
CORPORATE SOURCE: Sree Chitra Tirunal Inst Med Sci & Technol, Immunol Lab,

/Trivandrum 695011/Kerala/India/ (REPRINT); Sree Chitra Tirunal Inst Med Sci & Technol, Immunol Lab, /Trivandrum 695011/Kerala/India/
PUBLICATION TYPE: JOURNAL
PUBLICATION: FEMS IMMUNOLOGY AND MEDICAL MICROBIOLOGY, 2002, V33, N1 (MAR 25), P57-61
GENUINE ARTICLE#: 552GC
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
ISSN: 0928-8244
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Tanned sheep erythrocytes stabilized with pyruvic aldehyde and glutaraldehyde, called double-aldehyde-stabilized cells, were used to standardize passive hemagglutination assay (PHA) for detection of antibody responses to sonicate extract of Mycobacterium tuberculosis and Cysticercus cellulosae soluble antigens. PHA was performed in the following groups of cerebrospinal fluid (CSF) samples: group I chronic infections of the central nervous system with the possible diagnosis of tuberculous meningitis (TBM), tuberculoma and neurocysticercosis (NCC) (n = 88), and group II - controls which included (a) non-infectious non-neurological conditions (n = 30), (b) infectious neurological conditions (n = 21) and (c) non-infectious neurological conditions (n = 133). PHA could detect antimycobacterial antibodies at the sensitivity level of 80.76% with a specificity of 92.4% and anti-cysticercal antibodies with a sensitivity of 100% and specificity of 92.94%. However, in 6.33% (i.e. 14/221) of group I and group II (c) CSFs both anti-mycobacterial and anticysticercal antibodies were detected. Immunoblot analysis of CSFs derived from TBM patients reacted predominantly to 120-kDa, 96-kDa, 65-**kDa**, 38-**kDa**, 26-**kDa**, 23-**kDa**, 19-**kDa** and 12-**14**-**kDa** and 4-6-**kDa** antigens of M. tuberculosis sonicate extract (MTSE), whilst CSFs of proven NCC reacted to > 110-kDa, 96-kDa, 80-kDa, 66-68-kDa, 52-kDa and 26-28-kDa antigens of porcine whole cyst sonicate extract (PCSE). On immunoblot analysis, some of the CSFs of TBM patients were PHA positive for both MTSE and PCSE showed antibody reactivity to 70-kDa and 10-kDa antigens of C. cellulosae. Similarly CSF antibody of some Guillain Barre syndrome and myeloradiculopathy patients reacted with cysticercal antigens. But per se no cross-reactivity between MTSE and anti-cysticercal antibodies and vice-versa were observed. However, findings of this study should alert laboratory personnel especially in endemic areas to be extra careful in interpretation of antibody detection results. (C) 2002 Federation of European Microbiological Societies. Published by Elsevier Science B.V. All rights reserved.

13387626 References: 37
TITLE: Sequence variation in the cytochrome oxidase I, internal transcribed spacer 1, and **Ts14** diagnostic antigen sequences of Taenia **solium** isolates from South and Central America, India, and Asia
AUTHOR(S): Hancock K (REPRINT); Broughel DE; Moura INS; Khan A; Pieniazek NJ; Gonzalez AE; Garcia HH; Gilman RH; Tsang VCW
AUTHOR(S) E-MAIL: khancock@cdc.gov
CORPORATE SOURCE: Ctr Dis Control & Prevent, Div Parasit Dis, Bldg 23,Room 1001,Mail Stop F-13,4770 Buford High/Atlanta//GA/30341 (REPRINT); Ctr Dis

Control & Prevent, Div Parasit Dis, /Atlanta//GA/30341; Univ Nacl Mayor San Marcos, Sch Vet Med, /Lima 14//Peru/; Univ Peruana Cayetano Heredia, Dept Microbiol, /Lima//Peru/; Univ Peruana Cayetano Heredia, Dept Pathol, /Lima//Peru/; Inst Nacl Ciencias Neurol, Dept Transmissible Dis, /Lima//Peru/; Johns Hopkins Univ, Sch Hyg & Publ Hlth, /Baltimore//MD/
PUBLICATION TYPE: JOURNAL
PUBLICATION: INTERNATIONAL JOURNAL FOR PARASITOLOGY, 2001, V31, N14 (DEC) , P1601-1607
GENUINE ARTICLE#: 509DX
PUBLISHER: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND
ISSN: 0020-7519
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: We examined the genetic variability in the pig-human **tapeworm**, Taenia **solium**, by sequencing the genes for cytochrome oxidase 1, internal transcribed spacer 1, and a diagnostic antigen, **Ts14**, from individual cysts isolated from Peru, Colombia, Mexico, India, China, and the Philippines. For these genes. the rate of nucleotide variation was minimal. Isolates from these countries can be distinguished based on one to eight nucleotide differences in the 396 nucleotide cytochrome oxidase I (COI) sequence. However, all of the 15 isolates from within Peru had identical COI sequences. The **Ts14** sequences from India and China were identical and differed from the Peru sequence by three nucleotides in 333. These data indicate that there is minimal genetic variability within the species T. **solium**. Minimal variability was also seen in the ITSI sequence, but this variation was observed within the individual. Twenty-two cloned sequences from six isolates sorted into 13 unique sequences. The variability observed within the sequences from individual cysts was as great as the variability between the isolates. Published by Elsevier Science Ltd. on behalf of Australian Society for Parasitology.

4/3,AB/7 (Item 7 from file: 440)

13383450 References: 27
TITLE: Use of Taenia crassiceps cysticercus antigen preparations for detection of antibodies in cerebrospinal fluid samples from patients with neurocysticercosis (Taenia **solium**)
AUTHOR(S): Pardini AX; Peralta RH; Vaz AJ (REPRINT); Machado LD; Peralta JM
AUTHOR(S) E-MAIL: ajvaz@netpoint.com.br
CORPORATE SOURCE: Univ Sao Paulo, Clin Immunol Lab, Av Lineu Prestes 580,Bloco 17/BR-05508900 Sao Paulo//Brazil/ (REPRINT); Univ Sao Paulo, Clin Immunol Lab, /BR-05508900 Sao Paulo//Brazil/; Univ Sao Paulo, Ctr Neurol Invest, /Sao Paulo//Brazil/; Univ Fed Rio de Janeiro, Inst Microbiol, /BR-21941 Rio De Janeiro//Brazil/
PUBLICATION TYPE: JOURNAL
PUBLICATION: CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, 2002, V9, N1 (JAN), \P190-193
GENUINE ARTICLE#: 509VU
PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA
ISSN: 1071-412X

LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Antigen extracts obtained from the vesicular fluid of Taenia crassiceps cysticerci and from fractions purified by affinity chromatography with the lectin concanavalin A and the glycoprotein antigen separated by electrophoresis were used for the detection of Taenia **solium** anticysticercus antibodies. The sensitivity and specificity obtained for all antigens were 100% in enzyme-linked immunosorbent assay with good reproducibility. Using immunoblotting of the three antigens, low-molecular-mass peptides (**18** and **14 kDa**) were characterized only in cerebrospinal fluid samples from patients with neurocysticercosis. The results confirm that antigen fractions purified from T. crassiceps cisticerci are important sources of specific peptides and proved to be efficient in detecting anti-T. **solium** antibodies.

4/3,AB/8 (Item 8 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

13215035 References: 27
TITLE: Serodiagnosis of human cysticercosis by using antigens from vesicular fluid of Taenia crassiceps cysticerci
AUTHOR(S): Bueno EC; Snege M; Vaz AJ (REPRINT); Leser PG
AUTHOR(S) E-MAIL: ajvaz@netpoint.com.br
CORPORATE SOURCE: Univ Sao Paulo, Clin Immunol Lab, Av Lineu Prestes 580,Bloco 17/BR-05508900 Sao Paulo//Brazil/ (REPRINT); Univ Sao Paulo, Clin Immunol Lab, /BR-05508900 Sao Paulo//Brazil/; Univ Vale Itajai, Clin Immunol Lab, /Itajai/SC/Brazil/; Fleury Lab, /Sao Paulo//Brazil/
PUBLICATION TYPE: JOURNAL
PUBLICATION: CLINICAL AND DIAGNOSTIC LABORATORY IMMUNOLOGY, 2001, V8, N6 (NOV), P1140-1144
GENUINE ARTICLE#: 490EA
PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA
ISSN: 1071-412X
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Neurocysticercosis (NC), caused by the presence of Taenia **solium** metacestodes in tissues, is a severe parasitic infection of the central nervous system with universal distribution. To determine the efficiency of enzyme-linked immunosorbent assay (ELISA) and immunoblot with antigens of T. crassiceps vesicular fluid (Tcra) compared to standard techniques (indirect immunofluorescence test [IFT] and complement fixation test [CFT]) using T. **solium** cysticerci (Tso) for the serodiagnosis of NC, we studied serum samples from 24 patients with NC, 30 supposedly healthy individuals, 76 blood bank donors, 45 individuals with other non-NC parasitoses, and 97 samples from individuals screened for cysticercosis serology (SC). The sensitivity observed was 100% for ELISA-Tso and ELISA-Tcra, 91.7% for the IFT, and 87.5% for the CFT. The specificity was 90% for ELISA-Tso, 96.7% for ELISA-Tcra, 50% for IFT, and 63.3% for CFT. The efficiency was highest for ELISA-Tcra, followed by ELISA-Tso, IFT, and CFT. Of the 23 samples from SC group, which were reactive to ELISA-Tso and/or ELISA-Tcra, only 3 were positive to immunblot-Tcra (specific peptides of **14**- and **18-kDa**) and to glycoprotein peptides purified from Tcra antigen (gp-Tcra), showing the low predictive value of

ELISA for screening. None of the samples from the remaining groups showed specific reactivity in immunoblot-Tcra. These results demonstrate that ELISA-Tcra can be used as a screening method for the serodiagnosis of NC and support the need for specific tests for confirmation of the results. The immunoblot can be used as a confirmatory test both with Tcra and gp-Tcra, with the latter having an advantage in terms of visualization of the results.

4/3,AB/9 (Item 9 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

13037270 References: 35
TITLE: Cysticercus antigens in cerebrospinal fluid samples from patients with neurocysticercosis
AUTHOR(S): Pardini AX; Vaz AJ (REPRINT); Machado LDR; Livramento JA
AUTHOR(S) E-MAIL: pardini@usp.br; ajvaz@netpoint.com.br
CORPORATE SOURCE: Univ Sao Paulo, Lab Imunol Clin, Av Lineu Prestes 580,Bloco 17/BR-05508900 Sao Paulo//Brazil/ (REPRINT); Univ Sao Paulo, Lab Imunol Clin, /BR-05508900 Sao Paulo//Brazil/; Univ Sao Paulo, Ctr Neurol Invest, /BR-01246903 Sao Paulo//Brazil/
PUBLICATION TYPE: JOURNAL
PUBLICATION: JOURNAL OF CLINICAL MICROBIOLOGY, 2001, V39, N9 (SEP), P 3368-3372
GENUINE ARTICLE#: 469VV
PUBLISHER: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA
ISSN: 0095-1137
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Antigens were detected in cerebrospinal fluid (CSF) samples from patients with neurocysticercosis (NC) by enzyme-linked immunosorbent assay (ELISA) using polyclonal sera of rabbit anti-Taenia **solium** cysticerci (anti-Tso) and anti-Taenia crassiceps cysticerci vesicular fluid (anti-Tcra or anti-Tcra <30 kDa). A group of NC patients (n=174) were studied (NC), including 40 patients in different phases of the disease. ELISAs carried outwith the anti-Tso, anti-Tcra, and anti-Tcra <30 kDa showed sensitivities of 81.2, 90, and 95.8% and specificities of 82, 98, and 100%, respectively. The **14**- and **18**-**kDa** low-molecular-weight peptides were only detected in CSF samples from patients with NC by immunoblotting with anti-Tso and anti-Tcra sera. Because of the, importance of the diagnosis and prognosis of cysticercosis, the detection of antigens may contribute as an additional marker to the study and clarification of the parasite-host relationship.

4/3,AB/10 (Item 10 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

12786112 References: 13
TITLE: The role of N-linked carbohydrates in the antigenicity of Taenia **solium** metacestode glycoproteins of 12, 16 and **18 kD**
AUTHOR(S): Obregon-Henao A; Gil DL; Gomez DI; Sanzon F; Teale JM; Restrepo BI (REPRINT)

AUTHOR(S) E-MAIL: blancos@epm.net.co
CORPORATE SOURCE: Corp Invest Biol, Mol Parasitol Grp, Cra 72A,No 78/Medellin//Colombia/ (REPRINT); Corp Invest Biol, Mol Parasitol Grp, /Medellin//Colombia/; Univ Antioquia, Escuela Bacteriol, /Medellin//Colombia/; Univ Narino, Fac Ciencias Pecuarias, /San Juan Pasto//Colombia/; Univ Texas, Dept Microbiol, /San Antonio//TX/78284
PUBLICATION TYPE: JOURNAL
PUBLICATION: MOLECULAR AND BIOCHEMICAL PARASITOLOGY, 2001, V114, N2 (MAY), P209-215
GENUINE ARTICLE#: 436FB
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
ISSN: 0166-6851
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: The glycoproteins of 12-28 kD from Taenia **solium** metacestodes provide a high specificity and sensitivity for the serological diagnosis of the central nervous system infection, neurocysticercosis. Their widespread use as antigens for routine serological assays will require their production in large and reproducible amounts. Prior to determining the ideal strategy to produce these antigens at a large scale, it is important to determine the contribution of the carbohydrates to the antigenicity of these molecules, given the uncertainty of reproducing saccharidic epitopes in recombinant expression systems. In this study we examined this issue. The chemical oxidation of the carbohydrates of the 12-28 kD glycoproteins with sodium metaperiodate, reduced the antigenicity of the molecules to variable extents, with the more notable changes being detected for the **18** and 28 **kD** antigens. This approach was complemented by purification of the 12, 16 and **18 kD** antigens, followed by the enzymatic deglycosylation of their abundant N-linked oligosaccharides, Silver-stained SDS-PAGE analysis indicated that the three deglycosylated antigens now migrated as 7 kD products, suggesting a protein backbone with a similar size, but different extents of glycosylation. By Western blot, the antigenicity of these antigens was diminished. This was more notable for the **18 kD** antigen, which is more heavily glycosylated than the 12 or 16 kD glycoproteins, These data suggest that the antigenicity of the glycoproteins of T. **solium** is due to a combination of carbohydrate and protein epitopes.

4/3,AB/11 (Item 11 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

12095769 References: 22
TITLE: Taenia **solium**: Molecular cloning and serologic evaluation of **14**-and **18-kDa** related, diagnostic antigens
AUTHOR(S): Greene RM; Hancock K; Wilkins PP; Tsang VCW (REPRINT)
CORPORATE SOURCE: Ctr Dis Control & Prevent, Publ Hlth Serv,US Dept HHS, /Atlanta//GA/30333 (REPRINT); Univ Georgia, Dept Cellular Biol, /Athens//GA/30602
PUBLICATION TYPE: JOURNAL
PUBLICATION: JOURNAL OF PARASITOLOGY, 2000, V86, N5 (OCT), P1001-1007
GENUINE ARTICLE#: 365NQ
PUBLISHER: AMER SOC PARASITOLOGISTS, 810 EAST 10TH STREET, LAWRENCE, KS 66044 USA

ISSN: 0022-3395
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: We are attempting to design a simpler assay based on synthetic or recombinant antigens to replace the labor-intensive enzyme-linked immunoelectrotransfer blot (EITB-C), which is currently used to diagnose Taenia **solium** cysticercosis. From the lentil lectin-bound fraction of cyst glycoproteins (the LLGP fraction used in the EITB-C), we previously identified and purified 2 related polypeptides of **14**- and **18**-**kDa** that demonstrated diagnostic usefulness. Using degenerate oligonucleotide primers corresponding to amino acid sequences of these polypeptides and a cDNA library prepared from T. **solium** cysticerci, we amplified cDNA clones that represent the **14**- and **18**-**kDa** polypeptides. These clones share sequence homology at the nucleotide and amino acid levels. Synthetic polypeptides that represented the full-length, mature proteins (sTS14 and sTS18) were assessed for serologic potential using an ELISA. sTS14, but not sTS18, demonstrated utility as a diagnostic antigen, sTS14 was recognized by antibodies in a majority of the sera from patients with cysticercosis and none of the sera from persons with other helminth infections or uninfected human sera. Furthermore, polyclonal antibodies to sTS14 reacted with 6 discrete proteins present in the LLGP cyst fraction, suggesting that **TS14** is a subunit of other previously described antigens used for diagnosing cysticercosis.

4/3,AB/12 (Item 12 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

11849598 References: 26
TITLE: ELISA and Western Blotting tests in the detection of IgG antibodies to Taenia **solium** metacestodes in serum samples in human neurocysticercosis
AUTHOR(S): Shiguekawa KYM; Mineo JR; de Moura LP; Costa-Cruz JM (REPRINT)
CORPORATE SOURCE: Univ Fed Uberlandia, Parasitol Lab, Av Para 1720/BR-38400902 Uberlandia/MG/Brazil/ (REPRINT); Univ Fed Uberlandia, Parasitol Lab, /BR-38400902 Uberlandia/MG/Brazil/; Univ Fed Uberlandia, Dept Neurol, /BR-38400902 Uberlandia/MG/Brazil/
PUBLICATION TYPE: JOURNAL
PUBLICATION: TROPICAL MEDICINE & INTERNATIONAL HEALTH, 2000, V5, N6 (JUN) , P443-449
GENUINE ARTICLE#: 337LP
PUBLISHER: BLACKWELL SCIENCE LTD, P O BOX 88, OSNEY MEAD, OXFORD OX2 0NE, OXON, ENGLAND
ISSN: 1360-2276
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: A comparative study of total saline extract (SE) and cyst vesicular fluid (VF) of Taenia **solium** metacestodes by ELISA and Western blotting assay (WB) tests was conducted to detect Ige in sera for diagnosis of human cysticercosis. Sera were obtained and analysed by ELISA in 1 :20 and 1 : 100 dilutions from 208 individuals: 12 confirmed neurocysticercosis (NC) (group 1), 101 suspected NC (group 2), 55 with various intestinal parasitosis (group 3) and 30 healthy individuals (group 4). The WE test was carried our on SE and VF extracts with and without

reducing agent, 2-beta-mercaptoethanol (2-ME) in 20 sera of each group. WE using extracts without 2-ME. and ELISA at 1 : 100 dilution were compared in 20 sera from each group; sensitivity and specificity were calculated using samples from groups 1, 3 and 4. By ELISA, in the 1 : 100 sera dilution reactivity was reduced for both antigens without changes in the sensitivity of the test. By WB, antigens treated with 2-ME demonstrated low specificity For SE and VF antigens, the proteins of 24, 39-42, 47-52, 56, 64-68, 126-155 **kDa** and **18**, 24, 26-25, 32-36, 47-52, 75 kDa, respectively, were considered immunodominant markers, with high indices of specificity, suggesting a profile for NC patients. However, as the sensitivity was found to be low, it might still not be a definitive test for NC when used alone. These data suggest WB as an indicative test to determine exposure to T. **solium**. ELISA and WE together may supply reliable results for the diagnosis of human cysticercosis, since appropriate purified antigens are not available yet.

4/3,AB/13 (Item 13 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

10555026 References: 14
TITLE: Diagnostic glycoproteins of Taenia **solium** cysts share homologous **14**-and **18**-**kDa** subunits
AUTHOR(S): Greene RM (REPRINT); Wilkins PP; Tsang VCW
AUTHOR(S) E-MAIL: rxg3@cdc.gov
CORPORATE SOURCE: Univ Georgia, Dept Cellular Biol, /Athens//GA/30602 (REPRINT); Univ Georgia, Dept Cellular Biol, /Athens//GA/30602; Ctr Dis Control & Prevent, Publ Hlth Serv, /Atlanta//GA/30341
PUBLICATION TYPE: JOURNAL
PUBLICATION: MOLECULAR AND BIOCHEMICAL PARASITOLOGY, 1999, V99, N2 (APR 30), P257-261
GENUINE ARTICLE#: 194XT
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
ISSN: 0166-6851
LANGUAGE: English DOCUMENT TYPE: ARTICLE

4/3,AB/14 (Item 14 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

09688180 References: 20
TITLE: Evaluation of excretory/secretory products of larval Taenia **solium** as diagnostic antigens for porcine and human cysticercosis
AUTHOR(S): Ko RC (REPRINT); Ng TF
CORPORATE SOURCE: UNIV HONG KONG,DEPT ZOOL, HUI OI CHOW SCI BLDG, POKFULAM RD/HONG KONG//PEOPLES R CHINA/ (REPRINT)
PUBLICATION TYPE: JOURNAL
PUBLICATION: JOURNAL OF HELMINTHOLOGY, 1998, V72, N2 (JUN), P147-154
GENUINE ARTICLE#: 102RN
PUBLISHER: C A B INTERNATIONAL, C/O PUBLISHING DIVISION, WALLINGFORD OX10 8DE, OXON, ENGLAND
ISSN: 0022-149X
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Excretory/secretory antigens (ES) of larval Taenia **solium** were obtained by maintaining the bladder worms in Medium 199 for 3 days. Analsysis by SDS-PAGE showed that ES antigens consisted of at least 19 polypeptides, with M-r ranging from **14**-116 **kDa**. Analytical isoelectric focusing revealed eight bands with acidic pi. An immunocytolocalization study using the peroxidase method demonstrated the presence of ES epitopes on the tegument of the wall of the spiral canals of bladder worms. The specificity of ES antigens was evaluated by EITB, ELISA and FAST-ELISA using antisera against the common parasites of Chinese pigs and man. ES antigens cross-reacted with the antiserum against larval T. hydatigena of pigs. However, these antigens were generally more specific in diagnosing human cysticercosis. Three host-like molecules with molecular masses 43, 58 and 66 kDa were present in the ES products.

4/3,AB/15 (Item 15 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

09550626 References: 13
TITLE: A Taenia **solium** oncosphere protein homologous to host-protective Taenia ovis and Taenia saginata **18 kDa** antigens
AUTHOR(S): Gauci CGP (REPRINT); Flisser A; Lightowlers MW
CORPORATE SOURCE: UNIV MELBOURNE,MOL PARASITOL LAB, PRINCES HIGHWAY/WERRIBEE/VIC 3030/AUSTRALIA/ (REPRINT); UNIV NACL AUTONOMA MEXICO,FAC MED, DEPT MICROBIOL & PARASITOL/MEXICO CITY 04510/DF/MEXICO/; INST NACL DIAGNOST & REFERENCIA EPIDEMIOL,SSA/MEXICO CITY 11340/DF/MEXICO/
PUBLICATION TYPE: JOURNAL
PUBLICATION: INTERNATIONAL JOURNAL FOR PARASITOLOGY, 1998, V28, N5 (MAY), P 757-760
GENUINE ARTICLE#: ZT669
PUBLISHER: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND
ISSN: 0020-7519
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: A Taenia **solium** cDNA (TSOL-18) encoding a protein with close homology to host protective oncosphere antigens from Taenia ovis (To18) and Taenia saginata (TSA-18) is described here. TSOL-18 was cloned from mRNA obtained from hatched and activated oncospheres of T. **solium**. The high level of predicted amino acid sequence homology among TSOL-18 and other host protective taeniid antigens suggests that the protein expressed by TSOL-18 may be capable of being used as a vaccine against T. **solium** infection in the parasite's intermediate hosts. (C) 1998 Australian Society for Parasitology. Published by Elsevier Science Ltd.

4/3,AB/16 (Item 16 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

08986530 References: 74
TITLE: Basic and applied immunology in cestode infections: from Hymenolepis

to Taenia and Echinococcus
AUTHOR(S): Ito A (REPRINT)
CORPORATE SOURCE: GIFU UNIV,SCH MED, DEPT PARASITOL/GIFU 500//JAPAN/ (REPRINT)
PUBLICATION TYPE: JOURNAL
PUBLICATION: INTERNATIONAL JOURNAL FOR PARASITOLOGY, 1997, V27, N10 (OCT) , P1203-1211
GENUINE ARTICLE#: YF814
PUBLISHER: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD, ENGLAND OX5 1GB
ISSN: 0020-7519
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: In larval cestode infections, it is well established that the intermediate mammalian host infected with egg-derived metacestodes in the tissue becomes completely immune to reinfection with eggs, whereas autoinfection has been conceived to occur in Hymenolepis nana/mouse (and human) and Taenia **solium**/human systems when these hosts are initially infected with metacestode-derived adult **tapeworms** in the lumen. In this review paper, the first topic is immunobiology of H. nana/mouse system on the reinfection immunity in order to get critical information as to how the initially ingested parasite (eggs or metacestodes) can develop into adult worms and how autoinfection does or does not occur in immunocompetent mice, since H. nana can complete its whole Life cycle in the mouse intestinal tissue and lumen, When mice are infected with eggs (= oncospheres) of H. nana, they become immune to challenge infections with eggs within a few days (early response) and with cysticercoids within two weeks (late response), The initially established adult worms are expelled later (worm expulsion response), When mice are infected with cysticercoids, either derived from beetles or mice, they become immune to challenge infection with cysticercoids but not with eggs. Therefore, autoinfection occurs in the intestinal tissue for the establishment of cysticercoids in the tissue but never occurs in the intestinal lumen for the establishment of adult worms in immunocompetent mice. The second topic is vaccination trial against challenge infection with eggs of Asian Taenia in pigs. Pigs vaccinated with frozen oncospheres of Asian Taenia from Taiwan or Korea or T. saginata showed very strong resistance, whereas pigs vaccinated with those of T. **solium** showed partial resistance only. It is suggested that Asian Taenia is much closer to T. saginata than T. **solium** from the immunobiological viewpoint, The third topic is immunodiagnosis of echinococcosis and cysticercosis. Immunoblot analysis has revealed that Em18 (**18 kDa** component of crude antigens of Echinococcus multilocularis protoscolex) and glycoproteins of T. **solium** cysticerci are highly specific or unique to alveolar echinococcosis and cysticercosis, respectively. The fourth topic is discussion on miscellaneous prospects including laboratory animal models for echinococcosis and cysticercosis.

4/3,AB/17 (Item 17 from file: 440)

07751840 References: 15
TITLE: High prevalence of serological markers of cysticercosis among

epileptic Malagasy children
AUTHOR(S): Grill J (REPRINT) ; Rakotomalala W; Andriantsimahavandy A; Boisier P; Guyon P; Roux J; Esterre P
CORPORATE SOURCE: HOP ST VINCENT DE PAUL,DEPT NEUROPAEDIAT, 74-82 AVE DENFERT ROCHEREAU/F-75674 PARIS 14//FRANCE/ (REPRINT); SOAVINANDRIANA HOSP,DEPT PAEDIAT/ANTANANARIVO//MALAGASY REPUBL/
PUBLICATION TYPE: JOURNAL
PUBLICATION: ANNALS OF TROPICAL PAEDIATRICS, 1996, V16, N3 (SEP), P185-191
GENUINE ARTICLE#: VH718
PUBLISHER: CARFAX PUBL CO, PO BOX 25, ABINGDON, OXFORDSHIRE, ENGLAND OX14 3UE
ISSN: 0272-4936
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: Neurocysticercosis (i.e. cerebral localization of the metacestode larvae of Taenia **solium**) is believed to be a major cause of late onset epilepsy in non-Muslim developing countries. To define its role in childhood epilepsy in Madagascar, analysis of serological markers of cysticercosis was performed in 256 children with unexplained epilepsy and in 113 controls. Sera were considered positive when high titres in ELISA were present together with atleast one of the bands 13, **14**, **18**, **21**, 24 or 32 **kD** on Western blot. Altogether, 17.6% of the patients versus none of the controls were seropositive using these criteria. When analysing the bands of the Western blot, those of13, 14 and 18 were significantly more frequently detected in sera of epileptic children than in sera of controls. Neurocysticercosis can be considered the main cause of secondary childhood epilepsy in our country, Madagascarbeing one of the most important foci in the world.

4/3,AB/18 (Item 18 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

07043796 References: 24
TITLE: EXPERIMENTAL TAENIA **SOLIUM** CYSTICERCOSIS IN PIGS - CHARACTERISTICS OF THE INFECTION AND ANTIBODY RESPONSE
AUTHOR(S): DEALUJA AS; VILLALOBOS ANM; PLANCARTE A; RODARTE LF; HERNANDEZ M ; SCIUTTO E
CORPORATE SOURCE: UNIV NACL AUTONOMA MEXICO,FAC MED VET & ZOOTECN/MEXICO CITY 04510/DF/MEXICO/ (Reprint); UNIV NACL AUTONOMA MEXICO,FAC MED/MEXICO CITY 04510/DF/MEXICO/; UNIV NACL AUTONOMA MEXICO,INST INVEST BIOMED/MEXICO CITY 04510/DF/MEXICO/
PUBLICATION: VETERINARY PARASITOLOGY, 1996, V61, N1-2 (JAN), P49-59
GENUINE ARTICLE#: TP507
ISSN: 0304-4017
LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: Pigs were infected with taeniid eggs to study the susceptibility to infection and reinfection of the animals of mixed breeds and of different ages, the viability and death of the metacestodes in the host tissue, and the antibody response which accompanies these events. Sixteen pigs were infected with Taenia **solium** eggs for this purpose. At necropsy metacestodes were counted in 2 kg of shoulder muscles and classified as vesicular or caseous, and all the metacestodes in brains were counted and classified. The results show that pigs inoculated at 49 and 60

days of age became infected to different degrees and reacted differently to the presence of parasites. In the brain the metacestodes remain viable for longer periods than in muscles. Enzyme-linked immunosorbent assay (ELISA) showed a significant rise in antibodies after infection, which started to decrease 92 days post-infection (p.i.). Pigs with viable cysts remained seropositive up to the end of the experiment (281 days p.i.). Antibody levels rose further after reinfection or after treatment. The results of Western blot were comparable to those of ELISA. Antigens of 13, **14** and **18 kDa** were most frequently recognized in early infections and then started to decrease 92 days p.i., while the antigens of 42, 50 and 24 kDa were recognized during later stages of infection (200 days p.i.). Western blot did not detect the presence of cerebral metacestodes in those animals that had been treated and had no viable ones in muscles. The results suggest that older animals are more resistant to the infection.

4/3,AB/19 (Item 19 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

06835106 References: 23
TITLE: IMMUNOBLOT EVALUATION OF IGG AND IGG-SUBCLASS ANTIBODY RESPONSES FOR IMMUNODIAGNOSIS OF HUMAN ALVEOLAR ECHINOCOCCOSIS
AUTHOR(S): WEN H; CRAIG PS (Reprint); ITO A; VUITTON DA; BRESSONHADNI S; ALLAN JC; ROGAN MT; PAOLLILO E; SHAMBESH M
CORPORATE SOURCE: UNIV SALFORD,DEPT BIOL SCI/SALFORD M5 4WT/LANCS/ENGLAND/ (Reprint); UNIV SALFORD,DEPT BIOL SCI/SALFORD M5 4WT/LANCS/ENGLAND/; XINJIANG MED COLL,DEPT SURG/URUMQI 830000//PEOPLES R CHINA/; XINJIANG MED COLL,HYDATID RES UNIT/URUMQI 830000//PEOPLES R CHINA/; GIFU UNIV,SCH MED,DEPT PARASITOL/GIFU 500//JAPAN/; UNIV FRANCHE COMTE,FAC MED,ALVEOLAR ECHINOCOCCOSIS RES GRP/F-25030 BESANCON//FRANCE/; FDN SAN PADUA/DURAZNO//URUGUAY/; AL FATEH UNIV,DEPT COMMUNITY MED/TRIPOLI//LIBYA/
PUBLICATION: ANNALS OF TROPICAL MEDICINE AND PARASITOLOGY, 1995, V89, N5 (OCT), P485-495
GENUINE ARTICLE#: TA566
ISSN: 0003-4983
LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: Antigen binding of total-IgG and IgG-subclass antibodies from patients with alveolar or cystic echinococcosis (AE and CE) was assessed by immunoblotting. Antigen extracts were prepared from Echinococcus multilocularis protoscoleces (EmP) or from homogenized E. multilocularis metacestode tissue (EmCH). Antigens of approximately 44, 35, 27, 21, 17.5 and 16.5 were recognized by total-IgG and IgG,- and IgG(4)-subclass antibodies in some of 50 human AE sera from China, Japan or France. The 44- and 35-kDa polypeptides, present in both EmP and EmCH extracts, were recognized by total-IgG antibodies in sera from 82% and 66% of the AE patients, respectively. However, over 30% cross-reactivity occurred between these two antigens and sera from CE and Taenia **solium** cysticercosis patients. The immunoblot specificities of the 27-, **21**- and 17.5-**kDa** antigens in EmP for E. multilocularis infection were 73%, 88% and 93%, respectively. Recognition of the 17.5-kDa antigen in the EmP immunoblot was much higher for the Japanese AE cases (11/13; 85%) than for the French (9/19; 47%) or Chinese (9/18; 50%) AE cases. None of the CE cases from Uruguay or Libya, where human AE has not been reported, was seropositive for the 17.5-kDa antigen. Antibodies from three (7.3%) of the

41 Chinese CE cases recognized the 17.5-kDa antigen. Within the 13 Japanese AE sera, the combined detection by IgG(1), IgG(4) and total-IgG antibodies of the 27-, **21**- and 17.5-**kDa** antigens in either EmP or EmCH immunoblots was greater than that by each class/subclass alone, increasing the overall sensitivity for AE patients.

A combined ELISA/immunoblot approach, including IgG-subclass detection using E. multilocularis protocolex or cyst extracts, could be useful for the differential diagnosis of human alveolar echinococcosis. An algorithm for such an approach is given.

4/3,AB/20 (Item 20 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

06111182 References: 26
TITLE: USE OF ENZYME-LINKED IMMUNOSORBENT ASSAY AND ENZYME-LINKED IMMUNOELECTROTRANSFER BLOT FOR THE DIAGNOSIS AND MONITORING OF NEUROCYSTICERCOSIS
AUTHOR(S): SIMAC C; MICHEL P; ANDRIANTSIMAHAVANDY A; ESTERRE P; MICHAULT A
CORPORATE SOURCE: INST PASTEUR MADAGASCAR,PARASITOL UNIT/ANTANANARIVO//MALAGASY REPUBL/
PUBLICATION: PARASITOLOGY RESEARCH, 1995, V81, N2 (JAN), P132-136
GENUINE ARTICLE#: QD227
ISSN: 0044-3255
LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: A total of 70 proven cases of neurocysticercosis from la Reunion (Indian Ocean) were studied with enzyme-linked immunoassay (ELISA) and immunoelectrotransfer blot (EITB) to detect specific antibodies in serum and cerebrospinal fluid (CSF). Absorbance levels of antibody to crude Taenia **solium** cyst extract as an antigen were compared with EITB banding-pattern and computed tomography-scan results. The EITB analysis of sera and CSF from patients with active neurocysticercosis, confirmed with characteristic brain-scan imaging and highest ELISA absorbance, regularly revealed two bands with molecular weights of 13 and **14 kDa**, respectively. These low-molecular-weight fractions are potential markers of active cerebral cysticercosis, a result obtained in the simple epidemiological situation of La Reunion (Indian Ocean). A parallel study is underway in Madagascar, where cross-reactivities with other parasitic diseases, including Schistosoma infections, may interfere.

4/3,AB/21 (Item 21 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)

06047630 References: 25
TITLE: IMMUNIZATION AGAINST TAENIA CRASSICEPS CYSTICERCOSIS - IDENTIFICATION OF THE MOST PROMISING ANTIGENS IN THE INDUCTION OF PROTECTIVE IMMUNITY
AUTHOR(S): VALDEZ F; HERNANDEZ M; GOVEZENSKY T; FRAGOSO G; SCIUTTO E
CORPORATE SOURCE: NATL AUTONOMOUS UNIV MEXICO,INST INVEST BIOMED,DEPT INMUNOL/MEXICO CITY 04510/DF/MEXICO/ (Reprint)
PUBLICATION: JOURNAL OF PARASITOLOGY, 1994, V80, N6 (DEC), P931-936

GENUINE ARTICLE#: PZ737
ISSN: 0022-3395
LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: Cross immunity between Taenia **solium** and Taenia crassiceps parasites points to T. crassiceps cysticercosis as a convenient model to test promising antigens aimed at the development of a vaccine against T. **solium** cysticercosis. Since total antigens from T. crassiceps metacestodes induce significant levels of protection in pigs against T. **solium** cysticercosis, we initiated this work to identify the most interesting antigens involved in protection. Twelve different antigen fractions isolated from T. crassiceps cysticerci were evaluated with respect to their capacity to induce resistance against a challenge with 10 T. crassiceps cysticerci in male BALB/cAnN mice. Mice were intraperitoneally immunized with 2 doses of each antigen, 5 or 15 mu g per mouse. The 12 antigen fractions were classified as protecting(200, 123, 74, 66, 56, 40-50, 27, and 8-**14 kDa**), facilitating (220-205 **kDa**), or irrelevant (150-160, 93, 108 kDa), according to their effect on the parasite load. The 3 most promising antigen fractions were reevaluated via subcutaneous immunization with Freund's complete adjuvant. A high level of protection was obtained when antigen fractions of 56, 66, and 74 kDa were used together. Interestingly, antigens with similar molecular weights were also detected in early steps of differentiation in T. **solium** cysticercosis. These observations may be helpful in the development of a synthetic or a recombinant vaccine against cysticercosis.

4/3,AB/22 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00965352
NOVEL DNA, NOVEL PROTEIN, AND NOVEL ANTIBODY
NEUE DNA, NEUES PROTEIN, NEUER ANTIKORPER
NOUVEL ADN, NOUVELLE PROTEINE ET NOUVEL ANTICORPS
PATENT ASSIGNEE:
  KYOWA HAKKO KOGYO CO., Ltd., (229066), 6-1, Ohtemachi 1-chome,
    Chiyoda-ku, Tokyo 100, (JP), (Applicant designated States: all)
INVENTOR:
  YOSHISUE, Hajime, 4-17-17, Morino, Machida-shi, Tokyo 194, (JP)
  SAITO, Akiko, 1-3-12-205, Naka-machi, Machida-shi, Tokyo 194, (JP)
  NAKAGAWA, Satoshi, 3-9-9, Naka-machi, Machida-shi, Tokyo 194, (JP)
  KUGA, Tetsuro, 3-9-13, Naka-machi, Machida-shi, Tokyo 194, (JP)
  SHINKAI, Akeo, 3-9-11, Naka-machi, Machida-shi, Tokyo 194, (JP)
  KOIKE, Masamichi, 3-9-13, Naka-machi, Machida-shi, Tokyo 194, (JP)
  NISHI, Tatsunari, 39-15, Higashimine-machi, Ohta-ku, Tokyo 145, (JP)
LEGAL REPRESENTATIVE:
  VOSSIUS & PARTNER (100314), Siebertstrasse 4, 81675 Munchen, (DE)
PATENT (CC, No, Kind, Date): EP 949271 A1 991013 (Basic)
                              WO 9824817 980611
APPLICATION (CC, No, Date): EP 97946126 971205; WO 97JP4470 971205
PRIORITY (CC, No, Date): JP 96325762 961205
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU;
  MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: C07K-014/54; C12N-015/24; C12N-005/10;
  C12N-005/20; C07K-016/24; G01N-033/577; G01N-033/50; A61K-039/00;

A61K-038/19; C12Q-001/68; C12Q-001/04; C12P-021/08; C12P-021/02; C12N-015/06

ABSTRACT EP 949271 A1
A novel protein capable of activating eosinophile cells; a DNA or oligonucleotides encoding this protein; a recombinant vector containing this DNA; a transformant containing this recombinant vector; a process for producing the above protein by using this transformant; a cell reacting specifically with the above protein; a cell membrane or a receptor binding specifically to the above protein; an agonist or an antagonist to the protein; an antibody binding specifically to the protein; and remedies or diagnostic methods with the use of the same for allergic inflammation, eosinophilic pneumonia, sudden eosinophilia, autoimmune disease, malignant tumor, or vermination.
ABSTRACT WORD COUNT: 98

LANGUAGE (Publication,Procedural,Application): English; English; Japanese
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	9941	1486
SPEC A	(English)	9941	20450
Total word count - document A			21936
Total word count - document B			0
Total word count - documents A + B			21936

4/3,AB/23 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00958290
MORPHOGEN PEPTIDE-INDUCED REGENERATION OF SENSE PERCEPTORY TISSUES
DIE VON MORPHOGENEN PEPTIDEN HERVORGERUFENE WIEDERHERSTELLUNG VON GEWEBE AUS SINNESZELLEN
REGENERATION INDUITE PAR PEPTIDE MORPHOGENE DE TISSUS PERCEPTO-SENSORIELS
PATENT ASSIGNEE:
Curis, Inc., (3218792), 45 Moulton Street, Cambridge, MA 02198, (US), (Proprietor designated states: all)
INVENTOR:
SAMPATH, Kuber, 98 Pamela Drive, Holliston, MA 01746, (US)
RUEGER, David, C., 81 Pine Hill Road, Southborough, MA 01772, (US)
COHEN, Charles, M., 1 Harrington Lane, Weston, MA 02139, (US)
CHARETTE, Marc, F., 17 Ellicolt Street, Needham, MA 02192, (US)
JIN, Donald, F., 9 Nightingale Drive, Shrewsbury, MA 01545, (US)
LEGAL REPRESENTATIVE:
Price, Vincent Andrew et al (79513), Fry Heath & Spence LLP The Gables Massetts Road, Horley Surrey RH6 7DQ, (GB)
PATENT (CC, No, Kind, Date): EP 956038 A1 991117 (Basic)
EP 956038 B1 030326
WO 98020890 980522
APPLICATION (CC, No, Date): EP 97948274 971114; WO 97US20743 971114
PRIORITY (CC, No, Date): US 751227 961115
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: A61K-038/18; A61P-027/00
NOTE:

No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200313	1534
CLAIMS B	(German)	200313	1520
CLAIMS B	(French)	200313	1977
SPEC B	(English)	200313	20744
Total word count - document A			0
Total word count - document B			25775
Total word count - documents A + B			25775

4/3,AB/24 (Item 3 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00724155
ANTIGENS PROTECTIVE AGAINST (ECHINOCOCCUS GRANULOSUS) INFECTION AND VACCINES CONTAINING SUCH ANTIGENS
SCHUTZENDE ANTIGENE GEGEN EINE (ECHINOCOCCUS GRANULOSUS) INFEKTION UND IMPFSTOFFE DIE ENTSPRECHENDE ANTIGENE ENTHALTEN
ANTIGENES PROTECTEURS CONTRE L'INFECTION PAR ECHINOCOCCUS GRANULOSUS ET VACCINS CONTENANT DE TELS ANTIGENES
PATENT ASSIGNEE:
NEW ZEALAND PASTORAL AGRICULTURE RESEARCH INSTITUTE LIMITED, (1694770), Peat Marwick Tower, 85 Alexandra Street, Hamilton, (NZ), (Proprietor designated states: all)
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LEGAL REPRESENTATIVE:
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PATENT (CC, No, Kind, Date): EP 629131 A1 951129 (Basic)
EP 629131 B1 010627
WO 9316722 930902
APPLICATION (CC, No, Date): EP 93905659 930222; WO 93NZ7 930222
PRIORITY (CC, No, Date): NZ 24168892 920221
DESIGNATED STATES: DE; ES; FR; GB; IT; PT
INTERNATIONAL PATENT CLASS: C12N-015/12; C12N-001/21; C12N-015/70; C12N-015/79; C12N-007/01; C07K-014/435; A61K-039/00; A61K-039/395; C12Q-001/68
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200126	924
CLAIMS B	(German)	200126	870

CLAIMS B	(French)	200126	956
SPEC B	(English)	200126	9790
Total word count - document A			0
Total word count - document B			12540
Total word count - documents A + B			12540

4/3,AB/25 (Item 4 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00681396
A 3 ADENOSINE RECEPTOR AGONISTS
A3 -ADENOSIN -REZEPTOR AGONISTEN
AGONISTES DU RECEPTEUR DE L'ADENOSINE A 3
PATENT ASSIGNEE:
THE UNITED STATES OF AMERICA, as represented by THE SECRETARY, Department of Health and Human Services, (1861303), National Institutes of Health, Office of Technology Transfer, Box OTT, Bethesda, MD 20892-9902, (US), (Proprietor designated states: all)
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VAN GALEN, Philip, J., M., Titus Brandsmaplein 40, NL-5342 EP Oss, (NL)
VON LUBITZ, Dag, K., J., E., 6329 Dorset Drive, Alexandria, VA 22310, (US)
JEONG, Heaok, Kim, c/o Prof. Lak-Shin Jeong, 11 Daehyun-dong, Seodaemun-ku, College of Pharmacy, Ehwa Women's University; Seoul 120-750, (KR)
LEGAL REPRESENTATIVE:
Walton, Sean Malcolm et al (77071), MEWBURN ELLIS, York House, 23 Kingsway, London WC2B 6HP, (GB)
PATENT (CC, No, Kind, Date): EP 708781 A1 960501 (Basic)
EP 708781 B1 011004
WO 9502604 950126
APPLICATION (CC, No, Date): EP 94923445 940713; WO 94US7835 940713
PRIORITY (CC, No, Date): US 91109 930713; US 163324 931206
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
INTERNATIONAL PATENT CLASS: C07H-019/167; A61K-031/70
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200140	2214
CLAIMS B	(German)	200140	2047
CLAIMS B	(French)	200140	2264
SPEC B	(English)	200140	33280
Total word count - document A			0
Total word count - document B			39805
Total word count - documents A + B			39805

4/3,AB/26 (Item 5 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00444570
EXCRETORY/SECRETORY ANTIGENS OF **TAPEWORM** (CYSTICERCUS CELLULOSAE) FOR USE IN IMMUNODIAGNOSIS AND VACCINE PREPARATION
EXKRETORISCHE/SEKRETORISCHE ANTIGENE DES BANDWURMS (CYSTICERCUS CELLULOSAE) ZUR VERWENDUNG IN DER IMMUNDIAGNOSTIK UND DER IMPFSTOFFBEREITUNG
ANTIGENES EXCRETOIRES/SECRETOIRES DU TENIA (CYSTICERCUS CELLULOSAE) DESTINES A ETRE UTILISES DANS DES IMMUNO-DIAGNOSTICS ET DANS LA PREPARATION DE VACCINS
PATENT ASSIGNEE:
Astra Aktiebolag, (699185), , S-151 85 Sodertalje, (SE), (applicant designated states: AT;BE;CH;DE;DK;ES;FR;GB;IT;LI;LU;NL;SE)
INVENTOR:
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CHANDRAMUKHI, A., 526, 11th Main V Block, Jayanagar Bangalore-560011, (IN)
LEGAL REPRESENTATIVE:
Hjertman, Ivan T. et al (23141), AB ASTRA Patent and Trade Mark Department, S-151 85 Sodertalje, (SE)
PATENT (CC, No, Kind, Date): EP 456686 A1 911121 (Basic)
EP 456686 B1 960320
WO 9008958 900809
APPLICATION (CC, No, Date): EP 90902417 900116; WO 90SE34 900116
PRIORITY (CC, No, Date): SE 89243 890124
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; IT; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: G01N-033/569; A61K-039/002; C12P-021/00;
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPAB96	693
CLAIMS B	(German)	EPAB96	655
CLAIMS B	(French)	EPAB96	773
SPEC B	(English)	EPAB96	4073
Total word count - document A			0
Total word count - document B			6194
Total word count - documents A + B			6194

Set	Items	Description
S5	326	AU=(TSANG, V? OR TSANG V?)
S6	2258	AU=(GREENE, R? OR GREENE R?)
S7	344	AU=(WILKINS, P? OR WILKINS P?)
S8	214	AU=(HANCOCK, K? OR HANCOCK K?)
S9	5	S5 AND S6 AND S7 AND S8
S10	47	S5 AND (S6 OR S7 OR S8)
S11	11	S6 AND (S7 OR S8)
S12	6	S7 AND S8
S13	87	(S1 OR S5 OR S6 OR S7 OR S8) AND (SOLIUM OR TAPEWORM? ? OR

- Author (S)

TAPE(W)WORM? ?)

S16 7 S13 AND (S1 OR S2)
S17 8 (S9 OR S11 OR S12 OR S16) NOT S3
S18 6 RD (unique items)
>>>No matching display code(s) found in file(s): 65, 113

18/3,AB/1 (Item 1 from file: 65)
DIALOG(R)File 65:Inside Conferences
(c) 2004 BLDSC all rts. reserv. All rts. reserv.

03879442 INSIDE CONFERENCE ITEM ID: CN040776795
THE 8-kDa DIAGNOSTIC ANTIGENS OF TAENIA SOLIUM
Hancock, K.; Khan, A.; Pieniazek, N. J.; **Wilkins, P. P.**; Tsang, V. C.
CONFERENCE: American Society of Tropical Medicine and Hygiene-Annual meeting; 50th
AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE, 2001; VOL 65; NO 3; SUPPL P: 389
American Society of Tropical Medicine and Hygiene, 2001
LANGUAGE: English DOCUMENT TYPE: Conference Preprinted abstracts and programme
CONFERENCE SPONSOR: American Society of Tropical Medicine and Hygiene
CONFERENCE LOCATION: Atlanta, GA 2001; Nov (200111) (200111)

18/3,AB/2 (Item 2 from file: 65)
DIALOG(R)File 65:Inside Conferences
(c) 2004 BLDSC all rts. reserv. All rts. reserv.

02044290 INSIDE CONFERENCE ITEM ID: CN021374024
Purification and Characterization of Taenia Solium Diagnostic Glycoprotein Antigens
Greene, R. M.; Tsang, V. C.; **Wilkins, P. P.**
CONFERENCE: American Society of Tropical Medicine and Hygiene-Annual meeting; 46th
AMERICAN JOURNAL OF TROPICAL MEDICINE AND HYGIENE, 1997; VOL 57; NUMBER 3 ; SUPP 1 P: 62
(np), 1997
LANGUAGE: English DOCUMENT TYPE: Conference Preprinted abstracts and programme
CONFERENCE SPONSOR: American Society of Tropical Medicine and Hygiene
CONFERENCE LOCATION: Lake Buena Vista, FL
CONFERENCE DATE: Dec 1997 (199712) (199712)

18/3,AB/3 (Item 1 from file: 440)
DIALOG(R)File 440:Current Contents Search(R)
(c) 2004 Inst for Sci Info. All rts. reserv.

17680464 Document Delivery Available: 000187807000012 References: 50
TITLE: Characterization and cloning of GP50, a Taenia solium antigen diagnostic for cysticercosis
AUTHOR(S): **Hancock K (REPRINT)**; Pattabhi S; **Greene RM**; Yushak ML; Williams F; Khan A; Priest JW; Levine MZ; Tsang VCW
AUTHOR(S) E-MAIL: khancock@cdc.gov

Searcher : Shears 571-272-2528

CORPORATE SOURCE: Ctr Dis Control & Prevent, Div Parasit Dis, Bldg 23,Room 1001,Mail Stop F-13,4770 Buford High/Atlanta//GA/30341 (REPRINT); Ctr Dis Control & Prevent, Div Parasit Dis, /Atlanta//GA/30341; Univ Illinois, Dept Otolaryngol Head & Neck Surg, /Chicago//IL/60612; Temple Univ, Dept Microbiol & Immunol, /Philadelphia//PA/19140
PUBLICATION TYPE: JOURNAL
PUBLICATION: MOLECULAR AND BIOCHEMICAL PARASITOLOGY, 2004, V133, N1 (JAN) , P115-124
GENUINE ARTICLE#: 760JC
PUBLISHER: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS
ISSN: 0166-6851
LANGUAGE: English DOCUMENT TYPE: ARTICLE

ABSTRACT: GP50, a Taenia solium protein diagnostic for cysticercosis has been cloned, sequenced, and characterized. GP50 is one diagnostic component of the lentil lectin purified glycoprotein (LLGP) antigens that have been used for antibody-based diagnosis of cysticercosis in a Western blot assay for nearly 15 years. GP50 is a glycosylated and GPI-anchored membrane protein. The native protein migrates at 50 kDa, but the predicted molecular weight of the mature protein is 28.9. Antigenically active recombinant GP50 has been expressed in a baculovirus expression system. The antigenic activity of both the native and recombinant proteins is dependent upon the correct formation of disulfide bonds. GP50, purified from cysticerci, has two homologs expressed in the adult worm, TSES33 and TSES38. Both are diagnostic for taeniasis. In spite of the amino acid similarities between GP50 and the TSES proteins, each appears to be a stage-specific antigen. A preliminary evaluation of recombinant GP50 in a Western blot assay showed 100% specificity for cysticercosis and 90% sensitivity for cysticercosis positive serum samples reactive with the GP50 component of LLGP.

18/3,AB/4 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01365909
METHODS AND COMPOSITIONS FOR DETECTING LARVAL TAENIA SOLIUM WITH A CLONED DIAGNOSTIC ANTIGEN
VERFAHREN UND ZUSAMMENSETZUNGEN ZUM NACHWEIS VON TAENIA SOLIUM LARVEN MITTELS EINES KLONIERTEN ANTIGENS
METHODES ET COMPOSITIONS POUR LA DETECTION DE TAENIA SOLIUM LARVAIRE AU MOYEN D'UN ANTIGENE DIAGNOSTIQUE CLONE
PATENT ASSIGNEE:
THE GOVERNMENT OF THE USA represented by THE DEPARTMENT OF HEALTH AND HUM AN SERVICES CENTERS FOR DISEASE CONTROL & PREVENTION, (1738224), 4770 Buford Highway(K79),, Atlanta, GA 30341, (US), (Applicant designated States: all)
INVENTOR:
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GREENE, Ryan M., 5303 Hamilton Wolfe Road, Apartment 1009, San Antonio, TX78229, (US)
WILKINS, Patricia, P., 5608 Hidden Harbor Drive, Gainesville, GA 30504, (US)
HANCOCK, Kathy, 1488 Los Amanda Circle, Atlanta, GA 30329, (US

LEGAL REPRESENTATIVE:
Gowshall, Jonathan Vallance (61531), FORRESTER & BOEHMERT
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PATENT (CC, No, Kind, Date): EP 1282822 A2 030212 (Basic)
WO 2001075448 011011
APPLICATION (CC, No, Date): EP 2001922947 010330; WO 2001US10392 010330
PRIORITY (CC, No, Date): US 194418 P 000404
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; TR
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: G01N-033/569
NOTE:
No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English

18/3,AB/5 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

01266342
METHODS AND COMPOSITIONS FOR DETECTING LARVAL i TAENIA SOLIUM /i
VERFAHREN UND ZUSAMMENSETZUNGEN ZUR DETEKTION VON TAENIA SOLIUM LARVEN
METHODES ET COMPOSITIONS DE DETECTION DE i TAENIA SOLIUM /i LARVAIRE
PATENT ASSIGNEE:
The Government of the United States of America, as represented by the Secretary, Department of Health & Human Services, (3095390), Technology Transfer Office Centers for Disease Control and Prevention Executive Park Building 4 Suite 1103, M/S E-67, Atlanta, Georgia 30329, (US), (Applicant designated States: all)
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WILKINS, Patricia, P., 5608 Hidden Harbor Drive, Gainesville, GA 30504, (US)
HANCOCK, Kathy, 1488 N. Amanda Circle, Atlanta, GA 30329, (US
PATENT (CC, No, Kind, Date):
WO 2001010897 010215
APPLICATION (CC, No, Date): EP 2000955343 000803; WO 2000US21173 000803
PRIORITY (CC, No, Date): US 147318 P 990805
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI
INTERNATIONAL PATENT CLASS: C07K-014/00
LANGUAGE (Publication,Procedural,Application): English; English; English

18/3,AB/6 (Item 1 from file: 357)
DIALOG(R)File 357:Derwent Biotech Res.

0279140 DBR Accession No.: 2002-03281 PATENT
Synthetic immunoreactive gp50 polypeptides from the larva of pork tapeworm Taenia solium are useful to detect and immunize against T. solium infection causing cysticercosis and neurocysticercosis - recombinant

Taenia soliun gp50 protein useful as a vaccine for infection therapy

AUTHOR: **Tsang V C W; Greene R M; Wilkins P P; Hancock K**
CORPORATE SOURCE: Atlanta, GA, USA.
PATENT ASSIGNEE: U.S.Govt.; U.S.Dep.Health-Hum.Serv.; U.S.Cent.Dis.Contr.Prev.Atlanta 2001

PATENT NUMBER: WO 200175448 PATENT DATE: 20011011 WPI ACCESSION NO.: 2001-662984 (200176)
PRIORITY APPLIC. NO.: US 194418 APPLIC. DATE: 20000404
NATIONAL APPLIC. NO.: WO 2001US10392 APPLIC. DATE: 20010330
LANGUAGE: English

ABSTRACT: A synthetic larval Taenia solium polypeptide (I), immunoreactive with T. solium larval gp50 antibodies or an antigenic fragment or analog of that polypeptide, is new. Also claimed are: an isolated nucleic acid; a DNA probe for detecting T. solium in a biological sample; detecting T. solium in a biological sample; and detecting T. solium antibodies in a biological sample. The polypeptide is used to diagnose a T. solium associated disease or condition in a mammal, particularly cysticercosis or neurocysticercosis and the nucleic acid encoding the synthetic immunoreactive polypeptide is used to immunize against T. solium infection (claimed). In an example, the coding regions for gp50a, gp50b and gp503 were subcloned into pBlueBac4.5/V5-His TOPO. Recombinant virus containing the gp50 sequence was formed by cotransfection of the transfer vector with Bac-N-Blue AcMNPV linear DNA in Sf9 insect cells. After purification of the recombinant virus, Sf9 cells were infected and harvested at 96 hours post-infection. (16pp)

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thioredoxin fusion proteins in <italic>Escherichia coli</italic>. The recombinant polypeptides reacted specifically in an immunoblot with pooled sera from individuals with confirmed cysticercosis, and did not react with cross-reactive echinococcosis sera, further indicating that these antigens may be important components of an assay based on synthetic antigens.

L8 ANSWER 22 OF 38 MEDLINE on STN DUPLICATE 14
ACCESSION NUMBER: 1998313741 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9650055
TITLE: A Taenia **solium** oncosphere protein homologous to host-protective Taenia ovis and Taenia saginata **18 kDa** antigens.
AUTHOR: Gauci C G; Flisser A; Lightowlers M W
CORPORATE SOURCE: Molecular Parasitology Laboratory, University of Melbourne, Werribee, Victoria, Australia.. c.gauci@vet__science.unimelb.edu.au
SOURCE: International journal for parasitology, (1998 May) 28 (5) 757-60.
Journal code: 0314024. ISSN: 0020-7519.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF017788
ENTRY MONTH: 199808
ENTRY DATE: Entered STN: 19980817
Last Updated on STN: 19980817
Entered Medline: 19980803

AB A Taenia **solium** cDNA (TSOL-18) encoding a protein with close homology to host protective oncosphere antigens from Taenia ovis (To18) and Taenia saginata (TSA-18) is described here. TSOL-18 was cloned from mRNA obtained from hatched and activated oncospheres of T. **solium**. The high level of predicted amino acid sequence homology among TSOL-18 and other host protective taeniid antigens suggests that the protein expressed by TSOL-18 may be capable of being used as a vaccine against T. **solium** infection in the parasite's intermediate hosts.

L8 ANSWER 23 OF 38 MEDLINE on STN DUPLICATE 15
ACCESSION NUMBER: 1998358905 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9687596
TITLE: Evaluation of excretory/secretory products of larval Taenia **solium** as diagnostic antigens for porcine and human cysticercosis.
AUTHOR: Ko R C; Ng T F
CORPORATE SOURCE: Department of Zoology, University of Hong Kong, China.. rcko@hkucc.hku.hk
SOURCE: Journal of helminthology, (1998 Jun) 72 (2) 147-54.
Journal code: 2985115R. ISSN: 0022-149X.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199810
ENTRY DATE: Entered STN: 19981029

Searcher : Shears 571-272-2528

Last Updated on STN: 19981029
Entered Medline: 19981019

AB Excretory/secretory antigens (ES) of larval Taenia **solium** were obtained by maintaining the bladder worms in Medium 199 for 3 days. Analysis by SDS-PAGE showed that ES antigens consisted of at least 19 polypeptides, with M(r) ranging from **14**-116 **kDa**. Analytical isoelectric focusing revealed eight bands with acidic pI. An immunocytolocalization study using the peroxidase method demonstrated the presence of ES epitopes on the tegument of the wall of the spiral canals of bladder worms. The specificity of ES antigens was evaluated by EITB, ELISA and FAST-ELISA using antisera against the common parasites of Chinese pigs and man. ES antigens cross-reacted with the antiserum against larval T. hydatigena of pigs. However, these antigens were generally more specific in diagnosing human cysticercosis. Three host-like molecules with molecular masses 43, 58 and 66 kDa were present in the ES products.

L8 ANSWER 24 OF 38 CABA COPYRIGHT 2004 CABI on STN
ACCESSION NUMBER: 1998:102065 CABA
DOCUMENT NUMBER: 19980804491
TITLE: Observations on several cysticercus antigens and its use in EITB for diagnosis of cysticercosis
AUTHOR: Qiu LiShu; Zhang YongHong; Xue HaiChou; Li Hao; Zhou HuiJuan; Chen ShenXia; Fu XingLi; Jiang BenQi; Shao ShiCai; Yang XinCheng; Qiu, L. S.; Zhang, Y. H.; Xue, H. C.; Li, H.; Zhou, H. J.; Chen, S. X.; Fu, X. L.; Jiang, B. Q.; Shao, S. C.; Yang, X. C.
CORPORATE SOURCE: Institute of Parasitic Diseases, CAPM, Shanghai 20025, China.
SOURCE: Chinese Journal of Schistosomiasis Control, (1998) Vol. 10, No. 1, pp. 29-32. 8 ref.
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19980714
Last Updated on STN: 19980714

AB Five cysticercus (Taenia **solium** metacestode) antigens, comprising the 10 000 g whole supernatant, the 10 000 g cyst fluid supernatant, scoleces, whole cysts and urea-soluble scolex antigens, were analysed by SDS-PAGE. Coomassie blue staining revealed 10, 10, 13, 14 and 5 bands, respectively. Silver staining showed 20, 20, 21, 21 and 13 bands, respectively. The MW range was 6.6 to >116 kDa. Three antigens (100 000 g cyst fluid supernatant, whole cyst and urea-soluble scolex antigens) were subjected to an enzyme-linked immunoelectro-transfer blot (EITB) assay against 105 serum samples. The results showed that 1 to 13 bands ranging from <6.6 to >116 kDa were present with sera from cysticercosis patients. Taking the < **21.5 kDa** bands as positive criteria, the positive rates of cyst fluid, whole cyst and urea-soluble scolex antigens were 54, 48 and 58%, respectively, and the false positive rates were 6, 10 and 0%, respectively. There was no cross reaction with sera from schistosomiasis, clonorchiasis and paragonimiasis patients. Two of 10 echinococcosis patients showed cross reaction with the

urea-soluble scolex antigen.

L8 ANSWER 25 OF 38 MEDLINE on STN DUPLICATE 16
ACCESSION NUMBER: 1998056030 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9394191
TITLE: Basic and applied immunology in cestode infections: from Hymenolepis to Taenia and Echinococcus.
AUTHOR: Ito A
CORPORATE SOURCE: Department of Parasitology, Gifu University School of Medicine, Japan.
SOURCE: International journal for parasitology, (1997 Oct) 27 (10) 1203-11. Ref: 74
Journal code: 0314024. ISSN: 0020-7519.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199801
ENTRY DATE: Entered STN: 19980130
Last Updated on STN: 19980130
Entered Medline: 19980121

AB In larval cestode infections, it is well established that the intermediate mammalian host infected with egg-derived metacestodes in the tissue becomes completely immune to reinfection with eggs, whereas autoinfection has been conceived to occur in Hymenolepis nana/mouse (and human) and Taenia **solium**/human systems when these hosts are initially infected with metacestode-derived adult **tapeworms** in the lumen. In this review paper, the first topic is immunobiology of H. nana/mouse system on the reinfection immunity in order to get critical information as to how the initially ingested parasite (eggs or metacestodes) can develop into adult worms and how autoinfection does or does not occur in immunocompetent mice, since H. nana can complete its whole life cycle in the mouse intestinal tissue and lumen. When mice are infected with eggs (= oncospheres) of H. nana, they become immune to challenge infections with eggs within a few days (early response) and with cysticercoids within two weeks (late response). The initially established adult worms are expelled later (worm expulsion response). When mice are infected with cysticercoids, either derived from beetles or mice, they become immune to challenge infection with cysticercoids but not with eggs. Therefore, autoinfection occurs in the intestinal tissue for the establishment of cysticercoids in the tissue but never occurs in the intestinal lumen for the establishment of adult worms in immunocompetent mice. The second topic is vaccination trial against challenge infection with eggs of Asian Taenia in pigs. Pigs vaccinated with frozen oncospheres of Asian Taenia from Taiwan or Korea or T. saginata showed very strong resistance, whereas pigs vaccinated with those of T. **solium** showed partial resistance only. It is suggested that Asian Taenia is much closer to T. saginata than T. **solium** from the immunobiological viewpoint. The third topic is immunodiagnosis of echinococcosis and cysticercosis. Immunoblot analysis has revealed that Em18 (**18 kDa** component of crude antigens of Echinococcus multilocularis

protoscolex) and glycoproteins of T. **solium** cysticerci are highly specific or unique to alveolar echinococcosis and cysticercosis, respectively. The fourth topic is discussion on miscellaneous prospects including laboratory animal models for echinococcosis and cysticercosis.

L8 ANSWER 26 OF 38 MEDLINE on STN DUPLICATE 17
ACCESSION NUMBER: 97049216 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8893946
TITLE: High prevalence of serological markers of cysticercosis among epileptic Malagasy children.
AUTHOR: Grill J; Rakotomalala W; Andriantsimahavandy A; Boisier P; Guyon P; Roux J; Esterre P
CORPORATE SOURCE: Department of Paediatrics, Soavinandriana Hospital, Antananarivo, Republic of Madagascar.
SOURCE: Annals of tropical paediatrics, (1996 Sep) 16 (3) 185-91.
Journal code: 8210625. ISSN: 0272-4936.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199701
ENTRY DATE: Entered STN: 19970219
Last Updated on STN: 19970219
Entered Medline: 19970122

AB Neurocysticercosis (i.e. cerebral localization of the metacestode larvae of Taenia **solium**) is believed to be a major cause of late onset epilepsy in non-Muslim developing countries. To define its role in childhood epilepsy in Madagascar, analysis of serological markers of cysticercosis was performed in 256 children with unexplained epilepsy and in 113 controls. Sera were considered positive when high titres in ELISA were present together with at least one of the bands 13, **14**, **18**, **21**, 24 or 32 **kD** on Western blot. Altogether, 17.6% of the patients versus none of the controls were seropositive using these criteria. When analysing the bands of the Western blot, those of 13, 14 and 18 were significantly more frequently detected in sera of epileptic children than in sera of controls. Neurocysticercosis can be considered the main cause of secondary childhood epilepsy in our country, Madagascar being one of the most important foci in the world.

L8 ANSWER 27 OF 38 MEDLINE on STN DUPLICATE 18
ACCESSION NUMBER: 96351096 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8750683
TITLE: Experimental Taenia **solium** cysticercosis in pigs: characteristics of the infection and antibody response.
COMMENT: Erratum in: Vet Parasitol 1996 Sep 2;64(3):259
AUTHOR: de Aluja A S; Villalobos A N; Plancarte A; Rodarte L F; Hernandez M; Sciutto E
CORPORATE SOURCE: Facultad de Medicina Veterinaria y Zootecnia, Universidad Nacional Autonoma de Mexico (UNAM).
SOURCE: Veterinary parasitology, (1996 Jan) 61 (1-2) 49-59.
Journal code: 7602745. ISSN: 0304-4017.

PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199610
ENTRY DATE: Entered STN: 19961025
Last Updated on STN: 19980206
Entered Medline: 19961017

AB Pigs were infected with taeniid eggs to study the susceptibility to infection and reinfection of the animals of mixed breeds and of different ages, the viability and death of the metacestodes in the host tissue, and the antibody response which accompanies these events. Sixteen pigs were infected with Taenia **solium** eggs for this purpose. At necropsy metacestodes were counted in 2 kg of shoulder muscles and classified as vesicular or caseous, and all the metacestodes in brains were counted and classified. The results show that pigs inoculated at 49 and 60 days of age became infected to different degrees and reacted differently to the presence of parasites. In the brain the metacestodes remain viable for longer periods than in muscles. Enzyme-linked immunosorbent assay (ELISA) showed a significant rise in antibodies after infection, which started to decrease 92 days post-infection (p.i.). Pigs with viable cysts remained seropositive up to the end of the experiment (281 days p.i.). Antibody levels rose further after reinfection or after treatment. The results of Western blot were comparable to those of ELISA. Antigens of 13, **14** and **18 kDa** were most frequently recognized in early infections and then started to decrease 92 days p.i., while the antigens of 42, 50 and 24 kDa were recognized during later stages of infection (200 days p.i.). The results suggest that older animals are more resistant to the infection [corrected].

L8 ANSWER 28 OF 38 CABA COPYRIGHT 2004 CABI on STN
ACCESSION NUMBER: 97:145498 CABA
DOCUMENT NUMBER: 19970805695
TITLE: Characteristics of the immune response in ocular cysticercosis
Particularites de la reponse immune dans la cysticercose oculaire
AUTHOR: Andriantsimahavandy, A.; Esterre, P.; Auzemery, A.; Godinaud, P.
CORPORATE SOURCE: Unite de Parasitologie, Institut Pasteur de Madagascar, BP 1274, 101 Antananarivo, Madagascar.
SOURCE: Archives de l'Institut Pasteur de Madagascar, (1996) Vol. 63, No. 1/2, pp. 34-37. 19 ref.
ISSN: 0020-2495
DOCUMENT TYPE: Journal
LANGUAGE: French
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19971211
Last Updated on STN: 19971211

AB The immune response to ocular cysticercosis (inflammatory reaction, immune suppression caused by Taenia **solium** larval products) is reviewed. An enzyme-linked immunoelectrotransfer blot assay (EITB) and ELISA were used to analyse aqueous and vitreous

humor samples and serum samples collected from 10 Malagasy patients. All the patients had ocular cysticercosis and attended the Centre Hospitalier de Soavinandriana, Madagascar. A **14** and 16 **kDa** band was detected in the humor samples in 5 and 6 patients, respectively.

L8 ANSWER 29 OF 38 CABA COPYRIGHT 2004 CABI on STN
ACCESSION NUMBER: 97:145497 CABA
DOCUMENT NUMBER: 19970805694
TITLE: Characteristics of the immune response in neurocysticercosis
Particularites de la reponse immune dans la neurocysticercose
AUTHOR: Andriantsimahavandy, A.; Esterre, Ph.; Michault, A.; Raobelison, A.; Guyon, P.; Chabrier, X.; Lapprand, M.
CORPORATE SOURCE: Unite de Parasitologie, Institut Pasteur de Madagascar, Antananarivo, Madagascar.
SOURCE: Archives de l'Institut Pasteur de Madagascar, (1996) Vol. 63, No. 1/2, pp. 31-33. 13 ref.
ISSN: 0020-2495
DOCUMENT TYPE: Journal
LANGUAGE: French
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19971211
Last Updated on STN: 19971211

AB The antigenic profiles of cerebrospinal fluid (CSF) and serum samples collected from 19 patients with simple or multiple neurocysticercosis were investigated using an enzyme-linked immunoelectrotransfer blot (EITB) and ELISA. The patients attended the Centre Hospitalaire de Soavinandriana, Madagascar. In 5 patients who displayed a normal immune response a 13 and/or **14** **kDa** band was always detected. No antibody response was detected the samples from 4 patients in which cysts were present. Antibodies were detected in one patient who presented without any neurological symptoms, and a further patient had a positive serum sample but a negative CSF sample.

L8 ANSWER 30 OF 38 MEDLINE on STN DUPLICATE 19
ACCESSION NUMBER: 96103616 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7495362
TITLE: Immunoblot evaluation of IgG and IgG-subclass antibody responses for immunodiagnosis of human alveolar echinococcosis.
AUTHOR: Wen H; Craig P S; Ito A; Vuitton D A; Bresson-Hadni S; Allan J C; Rogan M T; Paollilo E; Shambesh M
CORPORATE SOURCE: Department of Biological Sciences, University of Salford, U.K.
SOURCE: Annals of tropical medicine and parasitology, (1995 Oct) 89 (5) 485-95.
Journal code: 2985178R. ISSN: 0003-4983.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199601

Searcher : Shears 571-272-2528

ENTRY DATE: Entered STN: 19960217
Last Updated on STN: 19960217
Entered Medline: 19960111

AB Antigen binding of total-IgG and IgG-subclass antibodies from patients with alveolar or cystic echinococcosis (AE and CE) was assessed by immunoblotting. Antigen extracts were prepared from Echinococcus multilocularis protoscoleces (EmP) or from homogenized E. multilocularis metacestode tissue (EmCH). Antigens of approximately 44, 35, 21, 17.5 and 16.5 were recognized by total-IgG and IgG1- and IgG4-subclass antibodies in some of 50 human AE sera from China, Japan or France. The 44- and 35-kDa polypeptides, present in both EmP and EmCH extracts, were recognized by total-IgG antibodies in sera from 82% and 66% of the AE patients, respectively. However, over 30% cross-reactivity occurred between these two antigens and sera from CE and Taenia **solium** cysticercosis patients. The immunoblot specificities of the 27-, **21**- and 17.5-**kDa** antigens in EmP for E. multilocularis infection were 73%, 88% and 93%, respectively. Recognition of the 17.5-kDa antigen in the EmP immunoblot was much higher for the Japanese AE cases (11/13; 85%) than for the French (9/19; 47%) or Chinese (9/18; 50%) AE cases. None of the CE cases from Uruguay or Libya, where human AE has not been reported, was seropositive for the 17.5-kDa antigen. Antibodies from three (7.3%) of the 41 Chinese CE cases recognized the 17.5-kDa antigen. Within the 13 Japanese AE sera, the combined detection by IgG1, IgG4 and total-IgG antibodies of the 27-, **21**- and 17.5-**kDa** antigens in either EmP or EmCH immunoblots was greater than that by each class/subclass alone, increasing the overall sensitivity for AE patients. A combined ELISA/immunoblot approach, including IgG-subclass detection using E. multilocularis protocolex or cyst extracts, could be useful for the differential diagnosis of human alveolar echinococcosis. An algorithm for such an approach is given.

L8 ANSWER 31 OF 38 MEDLINE on STN DUPLICATE 20
ACCESSION NUMBER: 95249490 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7731920
TITLE: Use of enzyme-linked immunosorbent assay and enzyme-linked immunoelectrotransfer blot for the diagnosis and monitoring of neurocysticercosis.
AUTHOR: Simac C; Michel P; Andriantsimahavandy A; Esterre P; Michault A
CORPORATE SOURCE: Department of Parasitology, Regional Hospital of Saint-Pierre, La Reunion.
SOURCE: Parasitology research, (1995) 81 (2) 132-6.
Journal code: 8703571. ISSN: 0932-0113.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199506
ENTRY DATE: Entered STN: 19950608
Last Updated on STN: 19950608
Entered Medline: 19950601

AB A total of 70 proven cases of neurocysticercosis from la Reunion (Indian Ocean) were studied with enzyme-linked immunoassay (ELISA)

and immunoelectrotransfer blot (EITB) to detect specific antibodies in serum and cerebrospinal fluid (CSF). Absorbance levels of antibody to crude Taenia **solium** cyst extract as an antigen were compared with EITB banding-pattern and computed tomography-scan results. The EITB analysis of sera and CSF from patients with active neurocysticercosis, confirmed with characteristic brain-scan imaging and highest ELISA absorbance, regularly revealed two bands with molecular weights of 13 and **14 kDa**, respectively. These low-molecular-weight fractions are potential markers of active cerebral cysticercosis, a result obtained in the simple epidemiological situation of La Reunion (Indian Ocean). A parallel study is underway in Madagascar, where cross-reactivities with other parasitic diseases, including Schistosoma infections, may interfere.

L8 ANSWER 32 OF 38 MEDLINE on STN DUPLICATE 21
ACCESSION NUMBER: 95097105 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7799166
TITLE: Immunization against Taenia crassiceps cysticercosis: identification of the most promising antigens in the induction of protective immunity.
AUTHOR: Valdez F; Hernandez M; Govezensky T; Fragoso G; Sciutto E
CORPORATE SOURCE: Departamento de Inmunologia, Universidad Nacional Autonoma de Mexico, Mexico, D.F.
SOURCE: Journal of parasitology, (1994 Dec) 80 (6) 931-6. Journal code: 7803124. ISSN: 0022-3395.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199501
ENTRY DATE: Entered STN: 19950215
Last Updated on STN: 19950215
Entered Medline: 19950125

AB Cross immunity between Taenia **solium** and Taenia crassiceps parasites points to T. crassiceps cysticercosis as a convenient model to test promising antigens aimed at the development of a vaccine against T. **solium** cysticercosis. Since total antigens from T. crassiceps metacestodes induce significant levels of protection in pigs against T. **solium** cysticercosis, we initiated this work to identify the most interesting antigens involved in protection. Twelve different antigen fractions isolated from T. crassiceps cysticerci were evaluated with respect to their capacity to induce resistance against a challenge with 10 T. crassiceps cysticerci in male BALB/cAnN mice. Mice were intraperitoneally immunized with 2 doses of each antigen, 5 or 15 micrograms per mouse. The 12 antigen fractions were classified as protecting (200, 123, 74, 66, 56, 40-50, 27 and 8-**14 kDa**), facilitating (220-205 **kDa**), or irrelevant (150-160, 93, 108 kDa), according to their effect on the parasite load. The 3 most promising antigen fractions were reevaluated via subcutaneous immunization with Freund's complete adjuvant. A high level of protection was obtained when antigen fractions of 56, 66, and 74 kDa were used together. Interestingly, antigens with similar molecular weights were also detected in early steps of

differentiation in T. **solium** cysticercosis. These observations may be helpful in the development of a synthetic or a recombinant vaccine against cysticercosis.

L8 ANSWER 33 OF 38 CABA COPYRIGHT 2004 CABI on STN
ACCESSION NUMBER: 93:102998 CABA
DOCUMENT NUMBER: 19930883642
TITLE: Epidemiology of cysticercosis in Madagascar
Epidemiologie de la cysticercose a Madagascar
AUTHOR: Michel, P.; Callies, P.; Raharison, H.; Guyon, P.; Holvoet, L.; Genin, C.
CORPORATE SOURCE: Unite de Recherches Immunologiques, Institut Pasteur, Tananarive, Madagascar.
SOURCE: Bulletin de la Societe de Pathologie Exotique, (1993) Vol. 86, No. 1, pp. 62-67. 24 ref.
DOCUMENT TYPE: Journal
LANGUAGE: French
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 19941101
Last Updated on STN: 19941101

AB The status of cysticercosis in Madagascar, based on serological and clinical studies is described. 249 (18%) of 1408 sera from adults without clinical neurological symptoms from 6 provinces of Madagascar were positive for cysticercosis in the ELISA. The seropositivity rate ranged from 8% in Manakara to 23% in Tananarive (Anatihazo). The highest positivity rates were recorded in regions where the rates of pig breeding are the highest for Madagascar. The clinical aspects of the diseases, based on the study of 266 cases observed in Tananarive are also considered. Among these patients, 223 (82%) sera recognized, in the Western Blot, protein bands with MWs of 14 000 to 20 000, indicative of active disease. 409 (36%) of 1132 sera of patients with a neurological syndrome tested using the ELISA were positive. Of 200 patients with active cysticercosis treated with praziquantel, 82% showed a good biological and/ or clinical response. It is concluded that the disease may be eradicated on the island only by a concerted action of veterinary and public health services.<new para>ADDITIONAL ABSTRACT:<new para>The status of cysticercosis in Madagascar, based on serological and clinical studies is described. 249 (18%) of 1408 sera from adults without clinical neurological symptoms from 6 provinces of Madagascar were positive for cysticercosis in the ELISA. The seropositivity rate ranged from 8% in Manakara to 23% in Tananarive (Anatihazo). The highest positivity rates were recorded in regions where the rates of pig breeding are the highest for Madagascar. The clinical aspects of the diseases, based on the study of 266 cases observed in Tananarive are also considered. Among these patients, 223 (82%) sera recognized, in the Western Blot, protein bands with MWs of **14 kDa** to 20 **kDa**, indicative of active disease. 409 (36%) of 1132 sera of patients with a neurological syndrome tested using the ELISA were positive. Of 200 patients with active cysticercosis treated with praziquantel, 82% showed a good biological and/ or clinical response. It is concluded that the disease may be eradicated on the island only by a concerted action of veterinary and public health services.

L8 ANSWER 34 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on

STN
ACCESSION NUMBER: 1993:141850 BIOSIS
DOCUMENT NUMBER: PREV199395074650
TITLE: Evaluation of western immunoblot assay in identification of neurocysticercosis specific antigen(s).
AUTHOR(S): Vinayak, V. K. [Reprint author]; Kanwar, J. R.; Sawhney, I. M. S.; Chopra, J. S.
CORPORATE SOURCE: Dep. Exp. Med., Postgraduate Inst. Med. Educ. Res., Chandigarh 160 012, India
SOURCE: Immunology and Infectious Diseases (Oxford), (1992) Vol. 2, No. 4, pp. 281-285.
CODEN: IINDEK. ISSN: 0959-4957.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Mar 1993
Last Updated on STN: 16 Mar 1993

AB Antigenic analysis of crude sonicated extracts of cystwall, larvae or whole cyst on sodium dodecyl sulphate-polyacrylamide gel electrophoresis under reducing condition revealed identical pattern of polypeptides. By ELISA, sera from 16 (68%) of 20 neurocysticercosis cases had anti-cysticerus as well as anti-hydatid antibodies while 17 (85%) from hydatidosis, 6 (22%) of sera from patients of ascariasis, ancyclostomiasis or hymenolepiasis, 8 (50%) of the sera from amoebic liver abscess patients and 1 (4%) of 25 serum from healthy controls also had anti-cysticercus antibodies. The demonstration of anti-cysticerus antibodies in sera appears to have no/limited clinical significance. Serum and CSF from all confirmed cases of neurocysticercosis cases recognised identical 15 polypeptides with molecular masses of 14, 30, 54, 62, 68, 75-116 and 125-260 kDa in Western immunoblot assay of whole cysticercus antigens. However, polypeptides with **14** and 30 **kDa** molecular masses were never recognized by any sera from hydatidosis, other helminthic infections, tuberculosus meningitis or apparently healthy subjects. Thus, recognition of **14** and/or 30 **kDa** antigen(s) in Western immunoblot of sonicated extract of whole cysticerci by serum and CSF provide a specific diagnosis of neurocysticercosis.

L8 ANSWER 35 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1991:458386 BIOSIS
DOCUMENT NUMBER: PREV199192103166; BA92:103166
TITLE: SEPARATION OF COMPONENT PROTEINS IN CYSTIC FLUID OF TAENIA-**SOLIUM** METACESTODES BY GEL FILTRATION.
AUTHOR(S): CHOI C-S [Reprint author]; KONG Y; KANG S-Y; CHO S-Y
CORPORATE SOURCE: DEP PARASITOL, COLL MED, CHANG UNIV, SEOUL 156-756, KOREA
SOURCE: Chung-Ang Journal of Medicine, (1990) Vol. 15, No. 4, pp. 319-328.
CODEN: CJMEDQ. ISSN: 0253-6250.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 11 Oct 1991

Searcher : Shears 571-272-2528

Last Updated on STN: 11 Oct 1991

AB Cystic fluid of T. **solium** metacestodes has been used as a diagnostic antigen for human cysticercosis. Because of cross-reactions with other parasitic infections especially with human hydatidosis sera, the nature of antigenic proteins in CF should be studied in more details. Hitherto, only a protein of 150 kDa in CF, structurally similar with antigen B in HF, has been known. The proteins in CF were separated into 7 fractions by filtration through Sephacryl S-300 Superfine. Of them, fraction I, III, and IV were major fractions. Fraction VII was considered as a degradation product and salts in eluent. MW of proteins in each fraction at their peak point was 860 kDa in fraction I, 386 kDa in fraction II, 134 kDa in fraction III, 42 kDa in fraction IV, 8.5 kDa in fraction V, and 7 kDa in fraction VI. By non-denaturing disc-PAGE of CF and its fractions, main protein band in fraction III was found to be band C protein while that in fraction IV was newly recognized band N, which dispersed between band U and band C and stained faintly. By analyzing the results of reducing and non-reducing SDS-PAGE of CF and its fractions, the 150 kDa protein in fraction III was confirmed to be composed of 3 subunits of 15, 10, and 7 kDa. Higher molecular weight proteins in fraction I and fraction II were subdivided into 94, 64, 39, and 26 kDa subunits. The most remarkable finding was that the protein in fraction IV showed 44-46 **kDa** and **21**-26 **kDa** bands in non-reducing SDS-PAGE while it showed subunits of **21**, **18**, 15 and 10 **kDa** in reducing SDS-PAGE. And 64 kDa band was additionally found in reducing SDS-PAGE of fraction IV as well as in fraction I and fraction II. Further studies are necessary to find out the relationship of non-denatured proteins and their subunits especially in proteins in fraction I and fraction IV.

L8 ANSWER 36 OF 38 MEDLINE on STN DUPLICATE 22

ACCESSION NUMBER: 91104651 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1702989
TITLE: Component proteins in cystic fluid of Taenia **solium** metacestodes collected surgically from neurocysticercosis patients.
AUTHOR: Kong Y; Kang S Y; Cho S Y
CORPORATE SOURCE: Department of Parasitology, College of Medicine, Chung-Ang University, Seoul, Korea.
SOURCE: Kisaengch'unghak chapchi. Korean journal of parasitology, (1990 Jun) 28 (2) 101-8. Journal code: 0366132. ISSN: 0023-4001.
PUB. COUNTRY: KOREA
DOCUMENT TYPE: (CASE REPORTS) Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199102
ENTRY DATE: Entered STN: 19910329
Last Updated on STN: 19960129
Entered Medline: 19910225

AB Surgically collected cystic fluid of Taenia **solium** metacestodes from patients of intracranial cystic lesion were compared in their protein composition with those from naturally infected pigs in Cheju Do, Korea and Ecuador. In non-denaturing

discontinuous-polyacrylamide gel electrophoresis (disc-PAGE), no discernible differences were recognized in banding patterns between the cystic fluids from Cheju Do and Ecuador, and between the cystic fluids from pigs and human lesions except wider bands that corresponded to human albumin and gamma-globulin (in 4 of 9 patients). In reducing SDS-PAGE, bands in the cystic fluid from Ecuador showed the same banding pattern with that from Cheju Do but two bands of **21** and 17 **kDa** were stained darker.
Cystic fluids from patients revealed the same protein compositions of the major protein bands of 94, 64, 15, 10 and 7 kDa as in the cystic fluid of pig origin, but human albumin (66 kDa), heavy and light chains of gamma globulin (55 and 22.5 kDa) were contaminated in 4 of 9 cystic fluids. Human CSF proteins seem to have been contaminated during cystic fluid collection. In any cystic fluid from patients, the major protein component was 150 kDa which was subdivided into 15, 10 and 7 kDa in reducing SDS-PAGE.

L8 ANSWER 37 OF 38 TOXCENTER COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1990:111731 TOXCENTER
COPYRIGHT: Copyright 2004 ACS
DOCUMENT NUMBER: CA11201004084J
TITLE: Isolation of diagnostic glycoprotein antigens to Taenia **solium**, and an immunoblot assay, method, and kit for the detection of human cysticercosis
AUTHOR(S): Tsang, Victor C. W.; Brand, Joy A.; Boyer, Anne E.; Wilson, Marianna; Schantz, Peter M.; Maddison, Shirley E.
CORPORATE SOURCE: ASSIGNEE: United States Dept. of Health and Human Services
PATENT INFORMATION: US 292393 A0 15 Jun 1989
SOURCE: (1989) U. S. Pat. Appl., 35 pp. Avail. NTIS Order No. PAT-APPL-7-292 393.
CODEN: XAXXAV.
COUNTRY: UNITED STATES
DOCUMENT TYPE: Patent
FILE SEGMENT: CAPLUS
OTHER SOURCE: CAPLUS 1990:4084
LANGUAGE: English
ENTRY DATE: Entered STN: 20011116
Last Updated on STN: 20021022

AB A method for diagnosis of active human neurocysticercosis employs an immunoblot assay comprising detection of antibodies in human serum or cerebrospinal fluid. The antibodies are reacted with ≥1 Taenia **solium** larval antigen isolated by lentil-lectin affinity chromatog., ≥1 of the antigens being selected from glycoproteins of 13, 14, 18, **21**, 24, 39-42, and 50 **kilodalton** mol. weight. A kit used in the diagnosis is also provided. Glycoprotein antigens were isolated from a homogenate of T. **solium** cysts treated with urea and freon and purified with lentil-lectin-Sepharose 4B chromatog. The antigens were further treated with SDS and antigen concentration optimized by SDS-PAGE, immunoblotting, and exposure to normal serum and T. **solium** , and Echinococcus antiserum pools. Following a standard development procedure, the concentration which yielded all 7 clear diagnostic bands with T. **solium** antisera and min. cross-reactive bands, if

any, with the other 2 antigens, was selected as optimum antigen concentration A western blot immunoassay using the above diagnostic glycoprotein antigens for T. **solium** antibody detection in serum or cerebrospinal fluid was developed. With respect to band recognition frequencies and patterns, the 24 and 42 kilodalton glycoprotein bands were the most commonly recognized antigens among cysticercosis patients. Almost all patients react to >1 of the diagnostic bands, >50% reacted to ≥6 of 7 bands, and almost 40% of patients recognized all 7 of the diagnostic glycoproteins. The Western blot assay of the invention had 100% specificity and 98% sensitivity, based on results of all specimens tested from cysticercosis, heterologous infection, and control cases.

L8 ANSWER 38 OF 38 MEDLINE on STN DUPLICATE 23
ACCESSION NUMBER: 85002673 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6148176
TITLE: A comparison of phlorizin and phloretin adsorption by the **tapeworm** Hymenolepis diminuta.
AUTHOR: Lumsden R D; Murphy W A
SOURCE: Comparative biochemistry and physiology. A, Comparative physiology, (1984) 79 (1) 137-41. Journal code: 1276312. ISSN: 0300-9629.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198411
ENTRY DATE: Entered STN: 19900320
Last Updated on STN: 19970203
Entered Medline: 19841120

AB Phloretin and phlorizin adsorb to the tegument surface of Hymenolepis diminuta, with **KDs** of 2.39 mM and **14** .7 microM, respectively, and Vmaxs of 1446 and 12.54 nmoles/g tissue per 2 min, respectively. Phloretin adsorption is not inhibited by phlorizin or glucose. Glucose partially inhibits phlorizin adsorption. Phlorizin, but not phloretin, adsorption to isolated tegument brush border membrane preparations is partially inhibited by N-ethylmaleimide. No indications of phlorizin hydrolysis to phloretin during incubation with H. diminuta were obtained. The data are supportive of spacially separate and distinct binding sites for phloretin and phlorizin in the tegument brush border.

(FILE 'HCAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO, PHIC, PHIN, TOXCENTER, PASCAL, DISSABS, FEDRIP, CABA, AGRICOLA, VETU, VETB' ENTERED AT 12:10:36 ON 25 MAR 2004)

L9 1016 S "TSANG V"?/AU — Author (s)
L10 5631 S "GREENE R"?/AU
L11 938 S "WILKINS P"?/AU
L12 723 S "HANCOCK K"?/AU
L13 12 S L9 AND L10 AND L11 AND L12
L14 160 S L9 AND (L10 OR L11 OR L12)
L15 24 S L10 AND (L11 OR L12)
L16 12 S L11 AND L12
L17 282 S (L14 OR L15 OR L9 OR L10 OR L11 OR L12) AND (SOLIUM OR TAPE WORM OR TAPEWORM)
L18 30 S L17 AND (L4 OR L5)

Searcher : Shears 571-272-2528

L19 33 S L13 OR L16 OR L18
L20 10 DUP REM L19 (23 DUPLICATES REMOVED)

L20 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2003:542653 HCAPLUS
DOCUMENT NUMBER: 139:148143
TITLE: Characterization of the 8-kilodalton antigens of Taenia **solium** metacestodes and evaluation of their use in an enzyme-linked immunosorbent assay for serodiagnosis
AUTHOR(S): **Hancock, Kathy**; Khan, Azra; Williams, Fatima B.; Yushak, Melinda L.; Pattabhi, Sowmya; Noh, John; **Tsang, Victor C. W.**
CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA, 30341, USA
SOURCE: Journal of Clinical Microbiology (2003), 41(6), 2577-2586
CODEN: JCMIDW; ISSN: 0095-1137
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The Western blot for cysticercosis, which uses lentil lectin purified glycoprotein (LLGP) antigens extracted from the metacestode of Taenia solinm, has been the "gold standard" serodiagnostic assay since it was first described in 1989. The authors report that the diagnostic antigens at **14**, **18**, and **21** **kDa**, as well as some larger disulfide-bonded antigens, are actually all members of a very closely related family of proteins, the 8-kDa antigens. The genes for 18 unique, mature proteins have been identified. Nine of these were chemical synthesized and tested in an ELISA with a battery of defined serum samples, including 32 cysticercosis-pos. serum samples reactive with the 8-kDa antigens of LLGP on Western blotting, 34 serum samples from patients with other parasitic infections, and 15 normal human serum samples. One of the 8-kDa antigens, **TSRS1**, is 100% sensitive and 100% specific. **TsRS1** will be one component of a cocktail of three to four synthetic or recombinant antigens, based on the diagnostic bands of the Western blot, which will be used for the serodiagnosis of cysticercosis.
REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 2 OF 10 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 2002:585205 BIOSIS
DOCUMENT NUMBER: PREV200200585205
TITLE: Characterization of six proteins diagnostic for cysticercosis.
AUTHOR(S): **Hancock, K.** [Reprint author]; Khan, A. [Reprint author]; Levine, M. Z. [Reprint author]; Pattabhi, S. [Reprint author]; Yushak, M. [Reprint author]; Williams, F. [Reprint author]; Scheel, C. M. [Reprint author]; **Tsang, V. C. W.** [Reprint author]

Searcher : Shears 571-272-2528

CORPORATE SOURCE: Centers for Disease Control and Prevention, Atlanta, GA, USA
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2002) Vol. 102, pp. 127. print.
Meeting Info.: 102nd General Meeting of the American Society for Microbiology. Salt Lake City, UT, USA. May 19-23, 2002. American Society for Microbiology.
ISSN: 1060-2011.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Nov 2002
Last Updated on STN: 13 Nov 2002

AB The disease cysticercosis, caused by the larval form of Taenia **solium**, is endemic in all regions of the world where humans and pigs live in close contact. In Latin America alone, an estimated 400,000 people have symptomatic disease, typically neurologic symptoms due to parasites within the brain. Cysticercosis is diagnosed by detection of specific antibodies or by brain imaging techniques. The WHO/PAHO preferred immunologic assay for cysticercosis is our western blot using the lentil lectin bound fraction from urea solubilized larvae. Antibody reactivity with any one of six glycoproteins is diagnostic for cysticercosis. In order to develop a simple antibody detection assay for field use, we are characterizing, sequencing, cloning, and expressing the diagnostic proteins. The T. **solium** diagnostic proteins sort into three groups. The glycoproteins at **14, 18**, and **21-kDa** are all members of the 8-kDa diagnostic antigen family. These are secreted proteins with a mature size of 66 or 67 amino acids. To date; 31, 8-kDa antigen DNA sequences have been identified. These 31 sequences encode 18 unique, but very similar, proteins. By BLAST analysis, these proteins have been identified as members of a cestode-specific hydrophobic, ligand binding family. Eight of the 8-kDa antigens, representing each of the four clades in the family, have been chemically synthesized and evaluated for reactivity with antibodies in an ELISA. The proteins at 24 and 42-kDa are membrane proteins. Both extract into the detergent phase of Tx114 and both share a common N-terminal sequence. Further protein sequencing is underway. The protein at 50-kDa is also a membrane protein, shown to be GPI-anchored. While the proteins at 24/42 and 50 are distinct and fall into two groups, they share the common feature of requiring correct disulfide bond formation for antigenic activity. GP50 has been expressed, in active form, in an insect expression system and is being further evaluated. Our goal is to develop an antigen cocktail, probably consisting of one or more of the 8-kDa proteins, plus GP50, plus the 24 and/or 42-kDa proteins, which has a sensitivity of 98% and a specificity of 100%.

L20 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2
ACCESSION NUMBER: 2001:748119 HCAPLUS
DOCUMENT NUMBER: 135:302899
TITLE: Methods and compositions for detecting larval Taenia solium with a cloned diagnostic antigen
INVENTOR(S): **Tsang, Victor C. W.; Greene,**

Ryane M.; Wilkins, Patricia P.; Hancock, Kathy
PATENT ASSIGNEE(S): The Government of the United States of America, as Represented by the Secretary, Department of Health and Human Services, Centers for Disease Control, USA
SOURCE: PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001075448	A2	20011011	WO 2001-US10392	20010330
WO 2001075448	A3	20020418		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001049694	A5	20011015	AU 2001-49694	20010330
EP 1282822	A2	20030212	EP 2001-922947	20010330
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001009871	A	20030603	BR 2001-9871	20010330
US 2004033540	A1	20040219	US 2003-240982	20030220

PRIORITY APPLN. INFO.: US 2000-194418P P 20000404
WO 2001-US10392 W 20010330

AB Compns. and methods for the detection of Taenia solium and the diagnosis of T. solium infection are described. The nucleotide and amino acid sequences of the antigenic T. solium polypeptides gp50a, gp50b and gp50c are provided. The compns. contain synthetic antigenic polypeptides of larval origin prepared using the sequences described herein. Probes and primers for the detection or amplification of T. solium nucleic acid mols. are also described. The polypeptides can be administered to a human or animal to protect against T. solium infection. In addition, the polypeptides are useful as research tools for studying T. solium and as reagents in assays for the detection of T. solium antibodies in a biol. sample. The methods are sensitive and specific assays that utilize the stable recombinant or synthetic antigenic polypeptides or nucleic acid mols. encoding the larval polypeptides.

L20 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
ACCESSION NUMBER: 2001:115179 HCAPLUS
DOCUMENT NUMBER: 134:175260
TITLE: Methods and compositions for detecting larval Taenia **solium**

INVENTOR(S): **Tsang, Victor C. W.; Greene, Ryan M.; Wilkins, Patricia P.; Hancock, Kathy**
PATENT ASSIGNEE(S): Government of the United States of America as represented by the Secretary, Department of Health and Human Services, USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001010897	A2	20010215	WO 2000-US21173	20000803
WO 2001010897	A3	20010503		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2000067562	A5	20010305	AU 2000-67562	20000803

PRIORITY APPLN. INFO.: US 1999-147318P P 19990805
WO 2000-US21173 W 20000803

AB Compns. and methods for the detection of Taenia **solium** and the diagnosis and treatment of T. **solium** infection are described. The nucleotide and amino acid sequences of the antigenic polypeptides **TS-14**, **TS-18** and **TSRS-1** are provided. The compns. contain antigenic polypeptides of larval origin. The polypeptides are useful as research tools for studying T. **solium** and as reagents in assays for the detection of T. **solium** antibodies in a biol. sample. The methods are sensitive and specific assays that utilize the antigenic polypeptides or nucleic acid mols. encoding the larval polypeptides.

L20 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4
ACCESSION NUMBER: 2001:865925 HCAPLUS
DOCUMENT NUMBER: 136:260208
TITLE: Sequence variation in the cytochrome oxidase I, internal transcribed spacer 1, and **Ts14** diagnostic antigen sequences of Taenia **solium** isolates from South and Central America, India, and Asia
AUTHOR(S): **Hancock, K.**; Broughel, D. E.; Moura, I. N. S.; Khan, A.; Pieniazek, N. J.; Gonzalez, A. E.; Garcia, H. H.; Gilman, R. H.; **Tsang, V. C. W.**
CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA,

30341, USA
SOURCE: International Journal for Parasitology (2001), 31(14), 1601-1607
CODEN: IJPYBT; ISSN: 0020-7519
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We examined the genetic variability in the pig-human **tapeworm**, T. **solium**, by sequencing the genes for cytochrome oxidase I, internal transcribed spacer 1, and a diagnostic antigen, **Ts14**, from individual cysts isolated from Peru, Colombia, Mexico, India, China, and the Philippines. For these genes, the rate of nucleotide variation was minimal. Isolates from these countries can be distinguished based on 1-8 nucleotide differences in the 396 nucleotide cytochrome oxidase I (COI) sequence. However, all of the 15 isolates from within Peru had identical COI sequences. The **Ts14** sequences from India and China were identical and differed from the Peru sequence by 3 nucleotides in 333. These data indicate that there is minimal genetic variability within the species T. **solium**. Minimal variability was also seen in the ITS1 sequence, but this variation was observed within the individual. Twenty-two cloned sequences from 6 isolates sorted into 13 unique sequences. The variability observed within the sequences from individual cysts was as great as the variability between the isolates.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5
ACCESSION NUMBER: 2000:787125 HCAPLUS
DOCUMENT NUMBER: 135:117702
TITLE: Taenia **solium**: Molecular cloning and serologic evaluation of **14**- and **18-kDa** related, diagnostic antigens
AUTHOR(S): **Greene, Ryan M.; Hancock, Kathy; Wilkins, Patricia P.; Tsang, Victor C. W.**
CORPORATE SOURCE: Department of Cellular Biology, University of Georgia, Athens, GA, USA
SOURCE: Journal of Parasitology (2000), 86(5), 1001-1007
CODEN: JOPAA2; ISSN: 0022-3395
PUBLISHER: American Society of Parasitologists
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We are attempting to design a simpler assay based on synthetic or recombinant antigens to replace the labor-intensive enzyme-linked immunoelectrotransfer blot (EITB-C), which is currently used to diagnose Taenia **solium** cysticercosis. From the lentil lectin-bound fraction of cyst glycoproteins (the LLGP fraction used in the EITB-C), we previously identified and purified 2 related polypeptides of **14**- and **18-kDa** that demonstrated diagnostic usefulness. Using degenerate oligonucleotide primers corresponding to amino acid sequences of these polypeptides and a cDNA library prepared from T. **solium**

cysticerci, we amplified cDNA clones that represent the **14** - and **18-kDa** polypeptides. These clones share sequence homol. at the nucleotide and amino acid levels. Synthetic polypeptides that represented the full-length, mature proteins (sTS14 and sTS18) were assessed for serol. potential using an ELISA. STS14, but not sTS18, demonstrated utility as a diagnostic antigen. STS14 was recognized by antibodies in a majority of the sera from patients with cysticercosis and none of the sera from persons with other helminth infections or uninfected human sera. Furthermore, polyclonal antibodies to sTS14 reacted with 6 discrete proteins present in the LLGP cyst fraction, suggesting that **TS14** is a subunit of other previously described antigens used for diagnosing cysticercosis.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6

ACCESSION NUMBER: 1999:320507 HCAPLUS
DOCUMENT NUMBER: 131:71424
TITLE: Diagnostic glycoproteins of Taenia **solium** cysts share homologous **14** - and **18-kDa** subunits
AUTHOR(S): **Greene, Ryan M.; Wilkins, Patricia P.; Tsang, Victor C. W.**
CORPORATE SOURCE: Department of Cellular Biology, University of Georgia, Athens, GA, USA
SOURCE: Molecular and Biochemical Parasitology (1999), 99(2), 257-261
CODEN: MBIPDP; ISSN: 0166-6851
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Lentil lectin-bound glycoprotein antigens (LL-GP) from T. **solium** larval cysts were purified by SDS-PAGE and reduced with DTT. All glycoprotein fractions between 20 and 50 kDa contained proteins that, when reduced, yielded both **14**- and **18-kDa** subunits; fractions >30 **kDa** also included a **21-kDa** subunit. The **14** - and **18-kDa** subunits showed considerable homol. in their N-terminal and internal amino acid sequences. Of human sera testing pos. for LL-GP in an enzyme-linked immunoelectrotransfer blot (EITB) test, 77% recognized the **14-kDa** subunit, including 100% of sera from parasite-confirmed cases; the **18-kDa** subunit was less immunoreactive and did not detect any cases that were not reactive with the **14-kDa** subunit. LL-GP-pos. sera which did not react with the **14-kDa** subunit reacted only with larger glycoproteins (24, 39-42, and 50 kDa). A diagnostic test incorporating both the **14-kDa** subunit and ≥1 of the larger glycoproteins would probably approach the sensitivity and specificity of the EITB, and might be adapted for use with synthetic or cloned antigens in an inexpensive, rapid, and simple assay.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE FORMAT

L20 ANSWER 8 OF 10 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1999:477151 BIOSIS
DOCUMENT NUMBER: PREV199900477151
TITLE: Molecular cloning and serologic evaluation of Taenia solium diagnostic antigens.
AUTHOR(S): **Greene, R. M.** [Reprint author]; **Wilkins, P. P.; Hancock, K.; Tsang, V.C.W.**
CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA, USA
SOURCE: American Journal of Tropical Medicine and Hygiene, (Sept., 1999) Vol. 61, No. 3 SUPPL., pp. 178. print. Meeting Info.: 48th Annual Meeting of the American Society of Tropical Medicine and Hygiene. Washington, D.C., USA. November 28-December 2, 1999. American Society of Tropical Medicine and Hygiene. CODEN: AJTHAB. ISSN: 0002-9637.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Nov 1999
Last Updated on STN: 9 Nov 1999

L20 ANSWER 9 OF 10 DISSABS COPYRIGHT (C) 2004 ProQuest Information and Learning Company; All Rights Reserved on STN
ACCESSION NUMBER: 1999:42668 DISSABS Order Number: AAI9920032
TITLE: CHARACTERIZATION AND MOLECULAR CLONING OF DIAGNOSTIC POLYPEPTIDES OF TAENIA **SOLIUM** (CYSTICERCOSIS, IMMUNOBLOT ASSAYS)
AUTHOR: **GREENE, RYAN MERRILL [PH.D.]; TSANG, VICTOR C. W. [adviser]**
CORPORATE SOURCE: UNIVERSITY OF GEORGIA (0077)
SOURCE: Dissertation Abstracts International, (1998) Vol. 60, No. 2B, p. 490. Order No.: AAI9920032. 76 pages.
DOCUMENT TYPE: Dissertation
FILE SEGMENT: DAI
LANGUAGE: English
AB <italic>Taenia **solium**</italic> cysticercosis is an important human disease that has serious implications for public health and the economy of many developing nations. While a 98% sensitive and 100% specific enzyme-linked immunoelectrotransfer blot (EITB) currently exists to diagnose this disease, we are attempting to design a simpler assay based on synthetic antigens. We partially purified the diagnostic glycoproteins of the EITB into discrete fractions by preparative gel electrophoresis. Reduction with dithiothreitol (DTT) demonstrated that all proteins in the 20- to 50-kDa range are composed of at least two subunits, of **14-** and **18-kDa**, and the larger proteins also contain a **21-kDa** subunit. The **14-** and **18-kDa** subunits were shown to share extensive sequence identity, both at the N-terminus and within the peptide chain. We examined the immunoreactivity of the more reactive **14-kDa** subunit and found that it was recognized by

antibodies from 100% of patients with parasitologically confirmed neurocysticercosis. Overall, reactivity to the **14-kDa** subunit was 77% concordant with the EITB in detecting anti-cysticercosis antibodies and was 100% specific for cysticercosis. Using degenerate oligonucleotide primers corresponding to known amino acid sequence of these subunits, we amplified cDNA clones in a polymerase chain reaction (PCR) that represented the **14**- and **18-kDa** polypeptides and a third related sequence from a cDNA library prepared from <italic>T. **solium**</italic> cysticerci. The translated amino acid sequences of the three clones share significant sequence homology and encode 3 different polypeptides with predicated molecular weights of approximately 8-**kDa**. The **14**- and **18-kDa** cDNA sequences were subcloned into the plasmid pET-32 and were expressed as 28-kDa thioredoxin fusion proteins in <italic>Escherichia coli</italic>. The recombinant polypeptides reacted specifically in an immunoblot with pooled sera from individuals with confirmed cysticercosis, and did not react with cross-reactive echinococcosis sera, further indicating that these antigens may be important components of an assay based on synthetic antigens.

L20 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 7
ACCESSION NUMBER: 1990:4084 HCAPLUS
DOCUMENT NUMBER: 112:4084
TITLE: Isolation of diagnostic glycoprotein antigens to Taenia **solium**, and an immunoblot assay, method, and kit for the detection of human cysticercosis
INVENTOR(S): **Tsang, Victor C. W.**; Brand, Joy A.; Boyer, Anne E.; Wilson, Marianna; Schantz, Peter M.; Maddison, Shirley E.
PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA
SOURCE: U. S. Pat. Appl., 35 pp. Avail. NTIS Order No. PAT-APPL-7-292 393.
CODEN: XAXXAV
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 292393	A0	19890615	US 1988-292393	19881230
US 5354660	A	19941011	US 1992-863486	19920402

PRIORITY APPLN. INFO.: US 1988-292393 19881230

AB A method for diagnosis of active human neurocysticercosis employs an immunoblot assay comprising detection of antibodies in human serum or cerebrospinal fluid. The antibodies are reacted with ≥1 Taenia **solium** larval antigen isolated by lentil-lectin affinity chromatog., ≥1 of the antigens being selected from glycoproteins of 13, 14, 18, **21**, 24, 39-42, and 50 **kilodalton** mol. weight A kit used in the diagnosis is also provided. Glycoprotein antigens were isolated from a homogenate of T. **solium** cysts treated with urea and freon and purified

with lentil-lectin-Sepharose 4B chromatog. The antigens were further treated with SDS and antigen concentration optimized by SDS-PAGE, immunoblotting, and exposure to normal serum and T. **solium** , and Echinococcus antiserum pools. Following a standard development procedure, the concentration which yielded all 7 clear diagnostic bands with T. **solium** antisera and min. cross-reactive bands, if any, with the other 2 antigens, was selected as optimum antigen concentration A western blot immunoassay using the above diagnostic glycoprotein antigens for T. **solium** antibody detection in serum or cerebrospinal fluid was developed. With respect to band recognition frequencies and patterns, the 24 and 42 kilodalton glycoprotein bands were the most commonly recognized antigens among cysticercosis patients. Almost all patients react to >1 of the diagnostic bands, >50% reacted to ≥6 of 7 bands, and almost 40% of patients recognized all 7 of the diagnostic glycoproteins. The Western blot assay of the invention had 100% specificity and 98% sensitivity, based on results of all specimens tested from cysticercosis, heterologous infection, and control cases.

FILE 'HOME' ENTERED AT 12:14:42 ON 25 MAR 2004

Searcher : Shears 571-272-2528

Devi, S.
10/048146

-key terms

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     FILE 'REGISTRY' ENTERED AT 12:01:04 ON 25 MAR 2004
                  E "PROTEIN TS-14"/CN 5
L1             2 S E4-E5
                  E "PROTEIN TSRS-1"/CN
L2             1 S E4-5
L3             3 S L1 OR L2

     FILE 'HCAPLUS' ENTERED AT 12:01:55 ON 25 MAR 2004
L1             2 SEA FILE=REGISTRY ABB=ON  PLU=ON  ("PROTEIN TS-14
                  (TAENIA SOLIUM LARVA)"/CN OR "PROTEIN TS-18 (TAENIA
                  SOLIUM LARVA)"/CN)
L2             1 SEA FILE=REGISTRY ABB=ON  PLU=ON  ("PROTEIN TSRS-1
                  (TAENIA SOLIUM LARVA)"/CN OR "PROTEIN TSRS1 (TS RELATED
                  SEQUENCE 1) (TAENIA SOLIUM C-TERMINAL FRAGMENT)"/CN)
L3             3 SEA FILE=REGISTRY ABB=ON  PLU=ON  L1 OR L2
L4            79 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3 OR TS14 OR TS18 OR
                  TSRS1 OR TS(W)(14 OR 18) OR TSRS 1
L5         10904 SEA FILE=HCAPLUS ABB=ON  PLU=ON  14KD? OR 18KD? OR 21KD?
                  OR (14 OR 18 OR 21)(5A)(KD? OR KILOD? OR KILO(W)(DA OR
                  DALTON))
L6            18 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L4 OR L5) AND (SOLIUM
                  OR TAPE WORM OR TAPEWORM)

L6   ANSWER 1 OF 18  HCAPLUS  COPYRIGHT 2004 ACS on STN
ED   Entered STN:  16 Jul 2003
ACCESSION NUMBER:         2003:542653  HCAPLUS
DOCUMENT NUMBER:          139:148143
TITLE:                    Characterization of the 8-kilodalton antigens of
                          Taenia solium metacestodes and
                          evaluation of their use in an enzyme-linked
                          immunosorbent assay for serodiagnosis
AUTHOR(S):                Hancock, Kathy; Khan, Azra; Williams, Fatima B.;
                          Yushak, Melinda L.; Pattabhi, Sowmya; Noh, John;
                          Tsang, Victor C. W.
CORPORATE SOURCE:         Division of Parasitic Diseases, Centers for
                          Disease Control and Prevention, Atlanta, GA,
                          30341, USA
SOURCE:                   Journal of Clinical Microbiology (2003), 41(6),
                          2577-2586
                          CODEN: JCMIDW; ISSN: 0095-1137
PUBLISHER:                American Society for Microbiology
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   The Western blot for cysticercosis, which uses lentil lectin
     purified glycoprotein (LLGP) antigens extracted from the metacestode of
     Taenia solinm, has been the "gold standard" serodiagnostic assay since
     it was first described in 1989. The authors report that the
     diagnostic antigens at 14, 18, and 21
     kDa, as well as some larger disulfide-bonded antigens, are
     actually all members of a very closely related family of proteins,
     the 8-kDa antigens. The genes for 18 unique, mature proteins have
     been identified. Nine of these were chemical synthesized and tested in
     an ELISA with a battery of defined serum samples, including 32
     cysticercosis-pos. serum samples reactive with the 8-kDa antigens of
     LLGP on Western blotting, 34 serum samples from patients with other
     parasitic infections, and 15 normal human serum samples. One of the
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8-kDa antigens, **TSRS1**, is 100% sensitive and 100% specific. **TsRS1** will be one component of a cocktail of three to four synthetic or recombinant antigens, based on the diagnostic bands of the Western blot, which will be used for the serodiagnosis of cysticercosis.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 28 Aug 2002
ACCESSION NUMBER: 2002:648184 HCAPLUS
DOCUMENT NUMBER: 137:368132
TITLE: Excretory/secretory antigens (ES) from in-vitro cultures of Taenia crassiceps cysticerci, and use of an anti-ES monoclonal antibody for antigen detection in samples of cerebrospinal fluid from patients with neurocysticercosis
AUTHOR(S): Espindola, N. M.; Vaz, A. J.; Pardini, A. X.; Fernandes, I.
CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of Pharmaceutical Sciences, University of Sao Paulo, Sao Paulo, 05508-900, Brazil
SOURCE: Annals of Tropical Medicine & Parasitology (2002), 96(4), 361-368
CODEN: ATMPA2; ISSN: 0003-4983
PUBLISHER: Maney Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Antigens were obtained from cysticerci of the ORF strain of Taenia crassiceps, by culture of cysts in protein-free hybridoma medium (PFHM). Budding of new vesicles was observed after 24-48 h. Excretory/secretory (ES) antigens (peptides of < 20 kDa) were recovered in the medium after culture for 48 h. SDS-PAGE anal. of vesicular-fluid (VF) antigens (obtained by rupturing T. crassiceps cysticerci in PFHM) and the ES antigens indicated partial homol. between the two prepns. ES peptides of **18**- and **14** -**kDa** were recognized by polyclonal antibodies produced in rabbits immunized either with the VF antigens or with a total-antigen preparation of T. **solium** cysticerci. Antibodies present in samples of serum or cerebrospinal fluid (CSF) from patients with neurocysticercosis also reacted with ES peptides. An anti-ES monoclonal antibody detected antigens in the CSF from 10 patients with neurocysticercosis, showing the antigenic homol. of the ES antigens with those of T. **solium** cysticerci in human infections.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 25 Jun 2002
ACCESSION NUMBER: 2002:474386 HCAPLUS
DOCUMENT NUMBER: 137:350968
TITLE: Evaluation of an antigen from Taenia crassiceps cysticercus for the serodiagnosis of

neurocysticercosis

AUTHOR(S): Peralta, Regina H. S.; Vaz, Adelaide J.; Pardini, Alessandra; Macedo, Heloisa W.; Machado, Luis R.; De Simone, Salvatori G.; Peralta, Jose M.

CORPORATE SOURCE: Faculdade de Medicina, Departamento de Patologia, Universidade Federal Fluminense, Niteroi, Brazil

SOURCE: Acta Tropica (2002), 83(2), 159-168
CODEN: ACTRAQ; ISSN: 0001-706X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The authors report here the evaluation of an antigen from Taenia crassiceps cysticercus as a potential reagent in an enzyme-immunoelectrotransfer blotting assay (EITB) and an ELISA for the serodiagnosis of neurocysticercosis (NC) using clin. specimens obtained from patients in different phases of the disease. Serum and cerebrospinal fluid (CSF) samples from 64 patients suspected of having NC according to clin. manifestation and brain computed tomog. were tested by ELISA with Taenia **solium** total saline antigen (ELISA-Tso) and by immunoblotting with T. crassiceps glycoproteins antigen (EITB-gpTcra). Forty-five serum samples were also tested immunoblotting with T. **solium** glycoproteins antigen (EITB-gpTso) and 30 were tested by ELISA with T. crassiceps **14 kDa** glycoprotein (ELISA-gp14Tcra). Serum samples from apparently healthy individuals without any parasitic disease and from patients with other parasitic diseases were included as controls. The results of ELISA-Tso anal. with CSF obtained from 64 patients with NC showed that 53 (83%) were reactive. EITB-gpTcra anal. with serum from the same group of patients showed a sensitivity of 91%. Results of EITB-gpTso and EITB-gpTcra anal. with serum samples demonstrated an agreement of 100% between both tests. ELISA-gp14Tcra was pos. in 23 (77%) sera, 22 with paired CSF pos. When ELISA-gp14Tcra results were compared to EITB-Tso results, a relative sensitivity of 95% was observed All serum samples from the control group were neg. in ELISA-gp14Tcra and only one serum from an individual with Taenia saginata was reactive in this assay, showing a specificity of 99% for ELISA-gp14Tcra. This fraction was purified in only one step with a good yield for use in immunoassays. The authors suggest that the gp14Tcra antigen can be used for detecting anti-cysticercus antibodies in serum samples for epidemiol. investigation purposes and also for diagnostic screening of NC patients.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

ED Entered STN: 01 May 2002

ACCESSION NUMBER: 2002:324888 HCAPLUS

DOCUMENT NUMBER: 137:18939

TITLE: Assessment of antibody responses to antigens of Mycobacterium tuberculosis and Cysticercus cellulosae in cerebrospinal fluid of chronic meningitis patients for definitive diagnosis as

TBM/NCC by passive hemagglutination and immunoblot assays

AUTHOR(S): Katti, Muralidhar K.
CORPORATE SOURCE: Department of Microbiology, Immunology Laboratory, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvanathapuram, 695 011, India

SOURCE: FEMS Immunology and Medical Microbiology (2002), 33(1), 57-61
CODEN: FIMIEV; ISSN: 0928-8244
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Tanned sheep erythrocytes stabilized with pyruvic aldehyde and glutaraldehyde, called double-aldehyde-stabilized cells, were used to standardize passive hemagglutination assay (PHA) for detection of antibody responses to sonicate extract of Mycobacterium tuberculosis and Cysticercus cellulosae soluble antigens. PHA was performed in the following groups of cerebrospinal fluid (CSF) samples: group I - chronic infections of the central nervous system with the possible diagnosis of tuberculous meningitis (TBM), tuberculoma and neurocysticercosis (NCC) (n=88), and group II - controls which included (a) non-infectious non-neurol. conditions (n=30), (b) infectious neurol. conditions (n=21) and (c) non-infectious neurol. conditions (n=133). PHA could detect anti-mycobacterial antibodies at the sensitivity level of 80.76% with a specificity of 92.4% and anti-cysticercal antibodies with a sensitivity of 100% and specificity of 92.94%. However, in 6.33% (i.e. 14/221) of group I and group II (c) CSFs both anti-mycobacterial and anti-cysticercal antibodies were detected. Immunoblot anal. of CSFs derived from TBM patients reacted predominantly to 120-kDa, 96-kDa, 65-kDa, 38-kDa, 26-kDa, 23-**kDa**, 19-**kDa** and 12-**14**-**kDa** and 4-6-**kDa** antigens of M. tuberculosis sonicate extract (MTSE), while CSFs of proven NCC reacted to >110-kDa, 96-kDa, 80-kDa, 66-68-kDa, 52-kDa and 26-28-kDa antigens of porcine whole cyst sonicate extract (PCSE). On immunoblot anal., some of the CSFs of TBM patients were PHA pos. for both MTSE and PCSE showed antibody reactivity to 70-kDa and 10-kDa antigens of C. cellulosae. Similarly CSF antibody of some Guillain Barre syndrome and myeloradiculopathy patients reacted with cysticercal antigens. But per se no cross-reactivity between MTSE and anti-cysticercal antibodies and vice-versa were observed However, findings of this study should alert laboratory personnel especially in endemic areas to be extra careful in interpretation of antibody detection results.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 28 Jan 2002
ACCESSION NUMBER: 2002:74916 HCAPLUS
DOCUMENT NUMBER: 137:45604
TITLE: Use of Taenia crassiceps cysticercus antigen preparations for detection of antibodies in cerebrospinal fluid samples from patients with

neurocysticercosis (Taenia **solium**)
AUTHOR(S): Pardini, Alessandra Xavier; Peralta, Regina Helena; Vaz, Adelaide Jose; dos Ramos Machado, Luis; Peralta, Jose Mauro
CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of Pharmaceutical Sciences, University of Sao Paulo, Sao Paulo, CEP 05508-90, Brazil
SOURCE: Clinical and Diagnostic Laboratory Immunology (2002), 9(1), 190-193
CODEN: CDIMEN; ISSN: 1071-412X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Antigen exts. obtained from the vesicular fluid of Taenia crassiceps cysticerci and from fractions purified by affinity chromatog. with the lectin Con A and the glycoprotein antigen separated by electrophoresis were used for the detection of Taenia **solium** anticysticercus antibodies. The sensitivity and specificity obtained for all antigens were 100% in ELISA with good reproducibility. Using immunoblotting of the three antigens, low-mol.-mass peptides (**18** and **14 kDa**) were characterized only in cerebrospinal fluid samples from patients with neurocysticercosis. The results confirm that antigen fractions purified from T. crassiceps cisticerci are important sources of specific peptides and proved to be efficient in detecting anti-T. **solium** antibodies.
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 14 Dec 2001
ACCESSION NUMBER: 2001:904945 HCAPLUS
DOCUMENT NUMBER: 136:368028
TITLE: Serodiagnosis of human cysticercosis by using antigens from vesicular fluid of Taenia crassiceps cysticerci
AUTHOR(S): Bueno, Edneia C.; Snege, Miriam; Vaz, Adelaide J.; Leser, Paulo G.
CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of Pharmacy, University of the Vale do Itajai, Itajai SC, Brazil
SOURCE: Clinical and Diagnostic Laboratory Immunology (2001), 8(6), 1140-1144
CODEN: CDIMEN; ISSN: 1071-412X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Neurocysticercosis (NC), caused by the presence of Taenia **solium** metacestodes in tissues, is a severe parasitic infection of the central nervous system with universal distribution. To determine the efficiency of ELISA and immunoblot with antigens of T. crassiceps vesicular fluid (Tcra) compared to standard techniques [indirect immunofluorescence test (IFT) and complement fixation test (CFT)] using T. **solium** cysticerci (Tso) for the serodiagnosis of NC, the authors studied serum samples from 24

patients with NC, 30 supposedly healthy individuals, 76 blood bank donors, 45 individuals with other non-NC parasitoses, and 97 samples from individuals screened for cysticercosis serol. (SC). The sensitivity observed was 100% for ELISA-Tso and ELISA-Tcra, 91.7% for the IFT, and 87.5% for the CFT. The specificity was 90% for ELISA-Tso, 96.7% for ELISA-Tcra, 50% for IFT, and 63.3% for CFT. The efficiency was highest for ELISA-Tcra, followed by ELISA-Tso, IFT, and CFT. Of the 23 samples from SC group, which were reactive to ELISA-Tso and/or ELISA-Tcra, only 3 were pos. to immunoblot-Tcra (specific peptides of **14**- and **18**-**kDa**)
and to glycoprotein peptides purified from Tcra antigen (gp-Tcra), showing the low predictive value of ELISA for screening. None of the samples from the remaining groups showed specific reactivity in immunoblot-Tcra. These results demonstrate that ELISA-Tcra can be used as a screening method for the serodiagnosis of NC and support the need for specific tests for confirmation of the results. The immunoblot can be used as a confirmatory test both with Tcra and gp-Tcra, with the latter having an advantage in terms of visualization of the results.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 30 Nov 2001
ACCESSION NUMBER: 2001:865925 HCAPLUS
DOCUMENT NUMBER: 136:260208
TITLE: Sequence variation in the cytochrome oxidase I, internal transcribed spacer 1, and **Ts14** diagnostic antigen sequences of Taenia **solium** isolates from South and Central America, India, and Asia
AUTHOR(S): Hancock, K.; Broughel, D. E.; Moura, I. N. S.; Khan, A.; Pieniazek, N. J.; Gonzalez, A. E.; Garcia, H. H.; Gilman, R. H.; Tsang, V. C. W.
CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, GA, 30341, USA
SOURCE: International Journal for Parasitology (2001), 31(14), 1601-1607
CODEN: IJPYBT; ISSN: 0020-7519
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We examined the genetic variability in the pig-human **tapeworm** , T. **solium**, by sequencing the genes for cytochrome oxidase I, internal transcribed spacer 1, and a diagnostic antigen, **Ts14**, from individual cysts isolated from Peru, Colombia, Mexico, India, China, and the Philippines. For these genes, the rate of nucleotide variation was minimal. Isolates from these countries can be distinguished based on 1-8 nucleotide differences in the 396 nucleotide cytochrome oxidase I (COI) sequence. However, all of the 15 isolates from within Peru had identical COI sequences. The **Ts14** sequences from India and China were identical and differed from the Peru sequence by 3 nucleotides in 333. These data indicate that there is minimal genetic variability within the

species T. **solium**. Minimal variability was also seen in the ITS1 sequence, but this variation was observed within the individual. Twenty-two cloned sequences from 6 isolates sorted into 13 unique sequences. The variability observed within the sequences from individual cysts was as great as the variability between the isolates.

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 30 May 2001
ACCESSION NUMBER: 2001:389934 HCAPLUS
DOCUMENT NUMBER: 135:179334
TITLE: The role of N-linked carbohydrates in the antigenicity of Taenia **solium** metacestode glycoproteins of 12, 16 and **18 kD**
AUTHOR(S): Obregon-Henao, A.; Gil, D. L.; Gomez, D. I.; Sanzon, F.; Teale, J. M.; Restrepo, B. I.
CORPORATE SOURCE: Molecular Parasitology Group, Corporacion para Investigaciones Biologicas, Medellin, Colombia
SOURCE: Molecular and Biochemical Parasitology (2001), 114(2), 209-215
CODEN: MBIPDP; ISSN: 0166-6851
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The glycoproteins of 12-28 kDa from T. **solium** metacestodes provide a high specificity and sensitivity for the serol. diagnosis of the central nervous system infection, neurocysticercosis. Their widespread use as antigens for routine serol. assays will require their production in large and reproducible amts. Prior to determining the ideal strategy to produce these antigens at a large scale, it is important to determine the contribution of the carbohydrates to the antigenicity of these mols., given the uncertainty of reproducing saccharidic epitopes in recombinant expression systems. Here, the authors examined this issue. The chemical oxidation of the carbohydrates of the 12-28 kDa glycoproteins with sodium metaperiodate, reduced the antigenicity of the mols. to variable extents, with the more notable changes being detected for the **18** and 28 **kDa** antigens. This approach was complemented by purification of the 12, 16 and **18 kDa** antigens, followed by the enzymic deglycosylation of their abundant N-linked oligosaccharides. Silver-stained SDS-PAGE anal. indicated that the 3 deglycosylated antigens now migrated as 7 kDa products, suggesting a protein backbone with a similar size, but different extents of glycosylation. By Western blot, the antigenicity of these antigens was diminished. This was more notable for the **18 kDa** antigen, which is more heavily glycosylated than the 12 or 16 kDa glycoproteins. Apparently, the antigenicity of the glycoproteins of T. **solium** is due to a combination of carbohydrate and protein epitopes.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 15 Feb 2001
ACCESSION NUMBER: 2001:115179 HCAPLUS
DOCUMENT NUMBER: 134:175260
TITLE: Methods and compositions for detecting larval Taenia **solium**
INVENTOR(S): Tsang, Victor C. W.; Greene, Ryan M.; Wilkins, Patricia P.; Hancock, Kathy
PATENT ASSIGNEE(S): Government of the United States of America as represented by the Secretary, Department of Health and Human Services, USA
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001010897	A2	20010215	WO 2000-US21173	20000803
WO 2001010897	A3	20010503		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 2000067562	A5	20010305	AU 2000-67562	20000803
PRIORITY APPLN. INFO.:			US 1999-147318P P	19990805
			WO 2000-US21173 W	20000803

AB Compns. and methods for the detection of Taenia **solium** and the diagnosis and treatment of T. **solium** infection are described. The nucleotide and amino acid sequences of the antigenic polypeptides **TS-14**, **TS-18** and **TSRS-1** are provided. The compns. contain antigenic polypeptides of larval origin. The polypeptides are useful as research tools for studying T. **solium** and as reagents in assays for the detection of T. **solium** antibodies in a biol. sample. The methods are sensitive and specific assays that utilize the antigenic polypeptides or nucleic acid mols. encoding the larval polypeptides.

IT **325862-05-3P**, Protein **TS-14** (Taenia **solium** larva) **325862-06-4P**, Protein **TS-18** (Taenia **solium** larva) **325862-07-5P**, Protein **TSRS-1** (Taenia **solium** larva)
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; methods and compns. for detecting larval Taenia **solium**)

L6 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 10 Nov 2000
ACCESSION NUMBER: 2000:787125 HCAPLUS
DOCUMENT NUMBER: 135:117702
TITLE: Taenia **solium**: Molecular cloning and serologic evaluation of **14**- and **18-kDa** related, diagnostic antigens
AUTHOR(S): Greene, Ryan M.; Hancock, Kathy; Wilkins, Patricia P.; Tsang, Victor C. W.
CORPORATE SOURCE: Department of Cellular Biology, University of Georgia, Athens, GA, USA
SOURCE: Journal of Parasitology (2000), 86(5), 1001-1007
CODEN: JOPAA2; ISSN: 0022-3395
PUBLISHER: American Society of Parasitologists
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We are attempting to design a simpler assay based on synthetic or recombinant antigens to replace the labor-intensive enzyme-linked immunoelectrotransfer blot (EITB-C), which is currently used to diagnose Taenia **solium** cysticercosis. From the lentil lectin-bound fraction of cyst glycoproteins (the LLGP fraction used in the EITB-C), we previously identified and purified 2 related polypeptides of **14**- and **18-kDa** that demonstrated diagnostic usefulness. Using degenerate oligonucleotide primers corresponding to amino acid sequences of these polypeptides and a cDNA library prepared from T. **solium** cysticerci, we amplified cDNA clones that represent the **14**- and **18-kDa** polypeptides. These clones share sequence homol. at the nucleotide and amino acid levels. Synthetic polypeptides that represented the full-length, mature proteins (sTS14 and sTS18) were assessed for serol. potential using an ELISA. STS14, but not sTS18, demonstrated utility as a diagnostic antigen. STS14 was recognized by antibodies in a majority of the sera from patients with cysticercosis and none of the sera from persons with other helminth infections or uninfected human sera. Furthermore, polyclonal antibodies to sTS14 reacted with 6 discrete proteins present in the LLGP cyst fraction, suggesting that **TS14** is a subunit of other previously described antigens used for diagnosing cysticercosis.

IT **325862-06-4**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(amino acid sequence; cloning, sequence and serol. evaluation of Taenia **solium** glycoproteins **TS18** and **TS14**)

IT **325862-07-5**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(amino acid sequence; of Taenia **solium** TS related sequence 1 (**TSRS1**) protein)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 14 Aug 2000
ACCESSION NUMBER: 2000:559072 HCAPLUS
DOCUMENT NUMBER: 134:129864
TITLE: ELISA and Western blotting tests in the detection of IgG antibodies to Taenia **solium** metacestodes in serum samples in human neurocysticercosis
AUTHOR(S): Shiguekawa, Kely Yoshiko Martins; Mineo, Jose Roberto; de Moura, Leandro Pajuaba; Costa-Cruz, Julia Maria
CORPORATE SOURCE: Department of Immunology, Microbiology and Parasitology, Federal University of Uberlandia, Uberlandia, Brazil
SOURCE: Tropical Medicine & International Health (2000), 5(6), 443-449
CODEN: TMIHFL; ISSN: 1360-2276
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A comparative study of total saline extract (SE) and cyst vesicular fluid (VF) of Taenia **solium** metacestodes by ELISA and Western blotting assay (WB) tests was conducted to detect IgG in sera for diagnosis of human cysticercosis. Sera were obtained and analyzed by ELISA in 1: 20 and 1: 100 dilns. from 208 individuals: 22 confirmed neurocysticercosis (NC) (group 1), 101 suspected NC (group 2), 55 with various intestinal parasitosis (group 3) and 30 healthy individuals (group 4). The WB test was carried out on SE and VF exts. with and without reducing agent, 2-β-mercaptoethanol (2-ME) in 20 sera of each group. WB using exts. without 2-ME and ELISA at 1: 100 dilution were compared in 20 sera from each group; sensitivity and specificity were calculated using samples from groups 1, 3 and 4. By ELISA, in the 1: 100 sera dilution reactivity was reduced for both antigens without changes in the sensitivity of the test. By WB, antigens treated with 2-ME demonstrated low specificity. For SE and VF antigens, the proteins of 24, 39-42, 47-52, 56, 64-68, 126-155 **kDa** and **18**, 24, 26-28, 32-36, 47-52, 75 kDa, resp., were considered immunodominant markers, with high indexes of specificity, suggesting a profile for NC patients. However, as the sensitivity was found to be low, it might still not be a definitive test for NC when used alone. These data suggest WB as an indicative test to determine exposure to T. **solium**. ELISA and WB together may supply reliable results for the diagnosis of human cysticercosis, since appropriate purified antigens are not available yet.
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 26 May 1999
ACCESSION NUMBER: 1999:320507 HCAPLUS
DOCUMENT NUMBER: 131:71424
TITLE: Diagnostic glycoproteins of Taenia **solium** cysts share homologous **14**- and **18-kDa** subunits

Searcher : Shears 571-272-2528

AUTHOR(S): Greene, Ryan M.; Wilkins, Patricia P.; Tsang, Victor C. W.
CORPORATE SOURCE: Department of Cellular Biology, University of Georgia, Athens, GA, USA
SOURCE: Molecular and Biochemical Parasitology (1999), 99(2), 257-261
CODEN: MBIPDP; ISSN: 0166-6851
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Lentil lectin-bound glycoprotein antigens (LL-GP) from T. **solium** larval cysts were purified by SDS-PAGE and reduced with DTT. All glycoprotein fractions between 20 and 50 kDa contained proteins that, when reduced, yielded both **14**- and **18-kDa** subunits; fractions >30 **kDa** also included a **21-kDa** subunit. The **14** - and **18-kDa** subunits showed considerable homol. in their N-terminal and internal amino acid sequences. Of human sera testing pos. for LL-GP in an enzyme-linked immunoelectrotransfer blot (EITB) test, 77% recognized the **14-kDa** subunit, including 100% of sera from parasite-confirmed cases; the **18-kDa** subunit was less immunoreactive and did not detect any cases that were not reactive with the **14-kDa** subunit. LL-GP-pos. sera which did not react with the **14-kDa** subunit reacted only with larger glycoproteins (24, 39-42, and 50 kDa). A diagnostic test incorporating both the **14-kDa** subunit and ≥1 of the larger glycoproteins would probably approach the sensitivity and specificity of the EITB, and might be adapted for use with synthetic or cloned antigens in an inexpensive, rapid, and simple assay.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 12 Aug 1998
ACCESSION NUMBER: 1998:500375 HCAPLUS
DOCUMENT NUMBER: 129:243808
TITLE: Evaluation of excretory/secretory products of larval Taenia **solium** as diagnostic antigens for porcine and human cysticercosis
AUTHOR(S): Ko, R. C.; Ng, T. F.
CORPORATE SOURCE: Department of Zoology, The University of Hong Kong, Hong Kong, Peop. Rep. China
SOURCE: Journal of Helminthology (1998), 72(2), 147-154
CODEN: JOHLAT; ISSN: 0022-149X
PUBLISHER: CAB International
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Excretory/secretory antigens (ES) of larval Taenia **solium** were obtained by maintaining the bladder worms in Medium 199 for 3 days. Anal. by SDS-PAGE showed that ES antigens consisted of at least 19 polypeptides, with Mr ranging from **14**-116 **kDa**. Anal. isoelec. focusing revealed eight bands with acidic pI. An immunocytolocalization study using the peroxidase

method demonstrated the presence of ES epitopes on the tegument of the wall of the spiral canals of bladder worms. The specificity of ES antigens was evaluated by EITB, ELISA and FAST-ELISA using antisera against the common parasites of Chinese pigs and man. ES antigens cross-reacted with the antiserum against larval T. hydatigena of pigs. However, these antigens were generally more specific in diagnosing human cysticercosis. Three host-like mols. with mol. masses 43, 58 and 66 kDa were present in the ES products.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 09 Jul 1998
ACCESSION NUMBER: 1998:418462 HCAPLUS
DOCUMENT NUMBER: 129:228327
TITLE: A Taenia **solium** oncosphere protein homologous to host-protective Taenia ovis and Taenia saginata **18 kDa** antigens
AUTHOR(S): Gauci, Charles G. P.; Flisser, Ana; Lightowlers, Marshall W.
CORPORATE SOURCE: Molecular Parasitology Laboratory, The University of Melbourne, Werribee, 3030, Australia
SOURCE: International Journal for Parasitology (1998), 28(5), 757-760
CODEN: IJPYBT; ISSN: 0020-7519
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A Taenia **solium** cDNA (TSOL-18) encoding a protein with close homol. to host protective oncosphere antigens from Taenia ovis (To18) and Taenia saginata (TSA-18) is described here. TSOL-18 was cloned from mRNA obtained from hatched and activated oncospheres of T. **solium**. The high level of predicted amino acid sequence homol. among TSOL-18 and other host protective taeniid antigens suggests that the protein expressed by TSOL-18 may be capable of being used as a vaccine against T. **solium** infection in the parasite's intermediate hosts.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 18 May 1995
ACCESSION NUMBER: 1995:558163 HCAPLUS
DOCUMENT NUMBER: 123:7466
TITLE: Identification of antigenic fractions of Cysticercus cellulosae by Western blotting in the serodiagnosis of human neurocysticercosis: before and after treatment
AUTHOR(S): Kaur, Manjit; Ganguly, N. K.; Mahajan, R. C.; Malla, Nancy
CORPORATE SOURCE: Department of Parasitology, Postgraduate Institute of Medical Education and Research,

Chandigarh, 160012, India
SOURCE: Immunology & Infectious Diseases (1995), 5(1), 67-72
CODEN: IINDEK; ISSN: 0959-4957
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Fractions of Cysticercus cellulosae crude extract antigen were isolated using a Sephadex G-200 column. The major peak fraction was subjected to Western blot anal. using pooled serum and cerebrospinal fluid (CSF) samples and individual serum samples from neurocyticercosis patients before and after treatment. The anal. revealed three highly immunoreactive bands (Mol. weight **18**, 20 and 24 **kDa**) with serum samples from neurocysticercosis patients. These components did not react with control samples including individual hydatid serum samples. One well-defined antigenic component (20 kDa) was immunoreactive with CSF pooled sample from neurocysticercosis patients. This component was non-reactive with the control CSF sample pool. Anal. of individual pre- and post-treatment serum samples indicate that the 20 kDa component was immunoreactive in all the seven pre- and post-treatment samples. The 24 kDa component reacted with three pre-treatment samples and this response was not found in all these three post-treatment samples. The **18 kDa** component remained pos. in two pre and post-treatment samples. This fraction with 20 kDa antigen may be regarded as the indicator of the effect of chemotherapy.

L6 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 11 Jan 1992
ACCESSION NUMBER: 1992:3280 HCAPLUS
DOCUMENT NUMBER: 116:3280
TITLE: Separation of component proteins in cystic fluid of Taenia **solium** metacestodes by gel filtration
AUTHOR(S): Choi, Chang Sig; Kong, Yoon; Kang, Shin Yong; Cho, Seung Yull
CORPORATE SOURCE: Coll. Med., Chung-Ang Univ., Seoul, 156-756, S. Korea
SOURCE: Chungang Uidaechi (1990), 15(4), 319-27
CODEN: CJMEDQ; ISSN: 0253-6250
DOCUMENT TYPE: Journal
LANGUAGE: English

AB This study investigated protein components of Taenia **solium** metacestodes in cystic fluid (CF). The proteins of CR were separated into 7 fractions by filtration through Sephacryl S-300 Superfine. The mol. wts. of proteins in each fraction at their peak points were: 860 kDa in fraction I, 386 kDa in fraction II, 134 kDa in fraction III, 42 kDa in fraction IV, 8.5 kDa in fraction V, and 7 kDa in fraction VI. Fraction VII was considered to be a degradation product. By non-denaturing disk-PAGE, the main protein band in fraction II was identified as band C protein while that in fraction IV was the newly recognized band N. In non-reducing SDS-PAGE the protein in fraction IV showed 44-46 **kDa** and **21** -26 **kDa** bands, whereas in reducing SDS-PAGE it showed subjnits of **21**, **18**, 15, and 10 **kDa**.

L6 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 06 Jan 1990
ACCESSION NUMBER: 1990:4084 HCAPLUS
DOCUMENT NUMBER: 112:4084
TITLE: Isolation of diagnostic glycoprotein antigens to Taenia **solium**, and an immunoblot assay, method, and kit for the detection of human cysticercosis
INVENTOR(S): Tsang, Victor C. W.; Brand, Joy A.; Boyer, Anne E.; Wilson, Marianna; Schantz, Peter M.; Maddison, Shirley E.
PATENT ASSIGNEE(S): United States Dept. of Health and Human Services, USA
SOURCE: U. S. Pat. Appl., 35 pp. Avail. NTIS Order No. PAT-APPL-7-292 393.
CODEN: XAXXAV
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 292393	A0	19890615	US 1988-292393	19881230
US 5354660	A	19941011	US 1992-863486	19920402

PRIORITY APPLN. INFO.: US 1988-292393 19881230

AB A method for diagnosis of active human neurocysticercosis employs an immunoblot assay comprising detection of antibodies in human serum or cerebrospinal fluid. The antibodies are reacted with ≥1 Taenia **solium** larval antigen isolated by lentil-lectin affinity chromatog., ≥1 of the antigens being selected from glycoproteins of 13, 14, 18, **21**, 24, 39-42, and 50 **kilodalton** mol. weight A kit used in the diagnosis is also provided. Glycoprotein antigens were isolated from a homogenate of T. **solium** cysts treated with urea and freon and purified with lentil-lectin-Sepharose 4B chromatog. The antigens were further treated with SDS and antigen concentration optimized by SDS-PAGE, immunoblotting, and exposure to normal serum and T. **solium** , and Echinococcus antiserum pools. Following a standard development procedure, the concentration which yielded all 7 clear diagnostic bands with T. **solium** antisera and min. cross-reactive bands, if any, with the other 2 antigens, was selected as optimum antigen concentration A western blot immunoassay using the above diagnostic glycoprotein antigens for T. **solium** antibody detection in serum or cerebrospinal fluid was developed. With respect to band recognition frequencies and patterns, the 24 and 42 kilodalton glycoprotein bands were the most commonly recognized antigens among cysticercosis patients. Almost all patients react to >1 of the diagnostic bands, >50% reacted to ≥6 of 7 bands, and almost 40% of patients recognized all 7 of the diagnostic glycoproteins. The Western blot assay of the invention had 100% specificity and 98% sensitivity, based on results of all specimens tested from cysticercosis, heterologous infection, and control cases.

L6 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
ED Entered STN: 27 Oct 1984

ACCESSION NUMBER: 1984:548425 HCAPLUS
DOCUMENT NUMBER: 101:148425
TITLE: A comparison of phlorizin and phloretin adsorption by the **tapeworm** Hymenolepis diminuta
AUTHOR(S): Lumsden, Richard D.; Murphy, William A.
CORPORATE SOURCE: Biol. Dep., Tulane Univ., New Orleans, LA, 70118, USA
SOURCE: Comparative Biochemistry and Physiology, Part A: Molecular & Integrative Physiology (1984), 79A(1), 137-41
CODEN: CBPAB5; ISSN: 0300-9629
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Phloretin and phlorizin adsorbed to the tegument surface of H. dimunuta, with **KDs** of 2.39 mM and **14**.7 μM, resp., and Vmaxs of 1446 and 12.54 nmoles/g tissue/2 min, resp. Phloretin adsorption was not inhibited by phlorizin or glucose. Glucose partially inhibited phlorizin adsorption. Phlorizin, but not phloretin, adsorption to isolated tegument brush border membrane prepns. was partially inhibited by N-ethylmaleimide. No indications of phlorizin hydrolysis to phloretin during incubation with H. diminuta were obtained. The data suggest spacially sep. and distinct binding sites for phloretin and phlorizin in the tegument brush border.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO, PHIC, PHIN, TOXCENTER, PASCAL, DISSABS, FEDRIP, CABA, AGRICOLA, VETU, VETB' ENTERED AT 12:08:24 ON 25 MAR 2004)
L7 113 S L6
L8 38 DUP REM L7 (75 DUPLICATES REMOVED)

L8 ANSWER 1 OF 38 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2003265560 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12791883
TITLE: Characterization of the 8-kilodalton antigens of Taenia **solium** metacestodes and evaluation of their use in an enzyme-linked immunosorbent assay for serodiagnosis.
AUTHOR: Hancock Kathy; Khan Azra; Williams Fatima B; Yushak Melinda L; Pattabhi Sowmya; Noh John; Tsang Victor C W
CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia 30341, USA.. khancock@cdc.gov
CONTRACT NUMBER: 1P01 AI51976-01 (NIAID)
U01 AI35894 (NIAID)
SOURCE: Journal of clinical microbiology, (2003 Jun) 41 (6) 2577-86.
Journal code: 7505564. ISSN: 0095-1137.
PUB. COUNTRY: United States
DOCUMENT TYPE: (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200310

Searcher : Shears 571-272-2528

ENTRY DATE: Entered STN: 20030608
Last Updated on STN: 20031002
Entered Medline: 20031001

AB The Western blot for cysticercosis, which uses lentil lectin purified glycoprotein (LLGP) antigens extracted from the metacestode of Taenia **solium**, has been the "gold standard" serodiagnostic assay since it was first described in 1989. We report that the diagnostic antigens at **14**, **18**, and **21 kDa**, as well as some larger disulfide-bonded antigens, are actually all members of a very closely related family of proteins, the 8-kDa antigens. The genes for 18 unique, mature proteins have been identified. Nine of these were chemically synthesized and tested in an enzyme-linked immunosorbent assay with a battery of defined serum samples, including 32 cysticercosis-positive serum samples reactive with the 8-kDa antigens of LLGP on Western blotting, 34 serum samples from patients with other parasitic infections, and 15 normal human serum samples. One of the 8-kDa antigens, **TsRS1**, is 100% sensitive and 100% specific. **TsRS1** will be one component of a cocktail of three to four synthetic or recombinant antigens, based on the diagnostic bands of the Western blot, which will be used for the serodiagnosis of cysticercosis.

L8 ANSWER 2 OF 38 CABA COPYRIGHT 2004 CABI on STN
ACCESSION NUMBER: 2004:7566 CABA
DOCUMENT NUMBER: 20033193222
TITLE: Assessment, purification and identification of Taenia **solium** cysticercus cyst fluid antigen by two-dimensional electrophoresis and Western-blot
AUTHOR: Wang LiNa; Ge LingYun; Dong CaiHua; et al; Wang, L. N.; Ge, L. Y.; Dong, C. H.
CORPORATE SOURCE: Shandong Provincial Institute of Parasitic Diseases, Jining 272033, China.
SOURCE: China Tropical Medicine, (2003) Vol. 3, No. 6, pp. 717-719. 9 ref.
Publisher: Editorial Department of China Tropical Medicine. Hainan
ISSN: 1009-9727
PUB. COUNTRY: China
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20040112
Last Updated on STN: 20040112

AB A study was conducted to screen specific antigens with high immunogenicity for diagnosis of cysticercosis [China]. Two-dimensional electrophoresis was used to isolate and purify Taenia **solium** cysticercus cyst fluid antigen, and specific antigenic proteins were screened from sera of cysticercosis patients, hydatidosis patients and other heterosera using western blotting. Two specific antigens with isoelectric point of 9.4 and molecular weights of **14** and 16 **kD** were obtained. The antigens had a specificity of 100% and were recognized by the sera of patients with acute cysticercosis. Purified antigenic proteins with high specificity and immunoreaction have been

screened.

L8 ANSWER 3 OF 38 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2002416268 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12171617
TITLE: Excretory/secretory antigens (ES) from in-vitro cultures of Taenia crassiceps cysticerci, and use of an anti-ES monoclonal antibody for antigen detection in samples of cerebrospinal fluid from patients with neurocysticercosis.
AUTHOR: Espindola N M; Vaz A J; Pardini A X; Fernandes I
CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of Pharmaceutical Sciences, University of Sao Paulo, Av. Prof. Lineu Prestes, 580, Bloco 17, 05508-900, Sao Paulo, SP, Brazil.
SOURCE: Annals of tropical medicine and parasitology, (2002 Jun) 96 (4) 361-8.
Journal code: 2985178R. ISSN: 0003-4983.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200209
ENTRY DATE: Entered STN: 20020813
Last Updated on STN: 20020928
Entered Medline: 20020927

AB Antigens were obtained from cysticerci of the ORF strain of Taenia crassiceps, by culture of cysts in protein-free hybridoma medium (PFHM). Budding of new vesicles was observed after 24-48 h. Excretory/secretory (ES) antigens (peptides of <20 kDa) were recovered in the medium after culture for 48 h. SDS-PAGE analysis of vesicular-fluid (VF) antigens (obtained by rupturing T. crassiceps cysticerci in PFHM) and the ES antigens indicated partial homology between the two preparations. ES peptides of **18-** and **14-kDa** were recognized by polyclonal antibodies produced in rabbits immunized either with the VF antigens or with a total-antigen preparation of T. **solium** cysticerci. Antibodies present in samples of serum or cerebrospinal fluid (CSF) from patients with neurocysticercosis also reacted with ES peptides. An anti-ES monoclonal antibody detected antigens in the CSF from 10 patients with neurocysticercosis, showing the antigenic homology of the ES antigens with those of T. **solium** cysticerci in human infections.

L8 ANSWER 4 OF 38 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2002051754 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11777854
TITLE: Use of Taenia crassiceps cysticercus antigen preparations for detection of antibodies in cerebrospinal fluid samples from patients with neurocysticercosis (Taenia **solium**).
AUTHOR: Pardini Alessandra Xavier; Peralta Regina Helena; Vaz Adelaide Jose; Machado Luis dos Ramos; Peralta Jose Mauro
CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of Pharmaceutical Sciences, University of Sao Paulo, Av.

Lineu Prestes 580, Sao Paulo SP. Brazil.
SOURCE: Clinical and diagnostic laboratory immunology, (2002 Jan) 9 (1) 190-3.
Journal code: 9421292. ISSN: 1071-412X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200202
ENTRY DATE: Entered STN: 20020125
Last Updated on STN: 20020301
Entered Medline: 20020228

AB Antigen extracts obtained from the vesicular fluid of Taenia crassiceps cysticerci and from fractions purified by affinity chromatography with the lectin concanavalin A and the glycoprotein antigen separated by electrophoresis were used for the detection of Taenia **solium** anticysticercus antibodies. The sensitivity and specificity obtained for all antigens were 100% in enzyme-linked immunosorbent assay with good reproducibility. Using immunoblotting of the three antigens, low-molecular-mass peptides (**18** and **14 kDa**) were characterized only in cerebrospinal fluid samples from patients with neurocysticercosis. The results confirm that antigen fractions purified from T. crassiceps cisticerci are important sources of specific peptides and proved to be efficient in detecting anti-T. **solium** antibodies.

L8 ANSWER 5 OF 38 MEDLINE on STN DUPLICATE 4

ACCESSION NUMBER: 2002345689 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12088857
TITLE: Evaluation of an antigen from Taenia crassiceps cysticercus for the serodiagnosis of neurocysticercosis.
AUTHOR: Peralta Regina H S; Vaz Adelaide J; Pardini Alessandra; Macedo Heloisa W; Machado Luis R; De Simone Salvatori G; Peralta Jose M
CORPORATE SOURCE: Departamento de Patologia, Faculdade de Medicina, Universidade Federal Fluminense, Niteroi, RJ, Brazil.. peralta@micro.ufrj.br
SOURCE: Acta tropica, (2002 Aug) 83 (2) 159-68.
Journal code: 0370374. ISSN: 0001-706X.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200208
ENTRY DATE: Entered STN: 20020629
Last Updated on STN: 20020807
Entered Medline: 20020806

AB We report here the evaluation of an antigen from Taenia crassiceps cysticercus as a potential reagent in an enzyme-immunoelectrotransfer blotting assay (EITB) and an enzyme-linked immunosorbent assay (ELISA) for the serodiagnosis of neurocysticercosis (NC) using clinical specimens obtained from patients in different phases of the disease. Serum and cerebrospinal fluid (CSF) samples from 64 patients suspected of having NC according to clinical manifestation and brain computed

tomography were tested by ELISA with Taenia **solium** total saline antigen (ELISA-Tso) and by immunoblotting with T. crassiceps glycoproteins antigen (EITB-gpTcra). Forty-five serum samples were also tested immunoblotting with T. **solium** glycoproteins antigen (EITB-gpTso) and 30 were tested by ELISA with T. crassiceps **14 kDa** glycoprotein (ELISA-gp14Tcra). Serum samples from apparently healthy individuals without any parasitic disease and from patients with other parasitic diseases were included as controls. The results of ELISA-Tso analysis with CSF obtained from 64 patients with NC showed that 53 (83%) were reactive. EITB-gpTcra analysis with serum from the same group of patients showed a sensitivity of 91%. Results of EITB-gpTso and EITB-gpTcra analysis with serum samples demonstrated an agreement of 100% between both tests. ELISA-gp14Tcra was positive in 23 (77%) sera, 22 with paired CSF positive. When ELISA-gp14Tcra results were compared to EITB-Tso results, a relative sensitivity of 95% was observed. All serum samples from the control group were negative in ELISA-gp14Tcra and only one serum from an individual with Taenia saginata was reactive in this assay, showing a specificity of 99% for ELISA-gp14Tcra. This fraction was purified in only one step with a good yield for use in immunoassays. We suggest that the gp14Tcra antigen can be used for detecting anti-cysticercus antibodies in serum samples for epidemiological investigation purposes and also for diagnostic screening of NC patients.

L8 ANSWER 6 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2002:585205 BIOSIS
DOCUMENT NUMBER: PREV200200585205
TITLE: Characterization of six proteins diagnostic for cysticercosis.
AUTHOR(S): Hancock, K. [Reprint author]; Khan, A. [Reprint author]; Levine, M. Z. [Reprint author]; Pattabhi, S. [Reprint author]; Yushak, M. [Reprint author]; Williams, F. [Reprint author]; Scheel, C. M. [Reprint author]; Tsang, V. C. W. [Reprint author]
CORPORATE SOURCE: Centers for Disease Control and Prevention, Atlanta, GA, USA
SOURCE: Abstracts of the General Meeting of the American Society for Microbiology, (2002) Vol. 102, pp. 127. print.
Meeting Info.: 102nd General Meeting of the American Society for Microbiology. Salt Lake City, UT, USA. May 19-23, 2002. American Society for Microbiology.
ISSN: 1060-2011.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 13 Nov 2002
Last Updated on STN: 13 Nov 2002

AB The disease cysticercosis, caused by the larval form of Taenia **solium**, is endemic in all regions of the world where humans and pigs live in close contact. In Latin America alone, an estimated 400,000 people have symptomatic disease, typically neurologic symptoms due to parasites within the brain. Cysticercosis is diagnosed by detection of specific antibodies or by

brain imaging techniques. The WHO/PAHO preferred immunologic assay for cysticercosis is our western blot using the lentil lectin bound fraction from urea solubilized larvae. Antibody reactivity with any one of six glycoproteins is diagnostic for cysticercosis. In order to develop a simple antibody detection assay for field use, we are characterizing, sequencing, cloning, and expressing the diagnostic proteins. The T. **solium** diagnostic proteins sort into three groups. The glycoproteins at **14, 18,** and **21-kDa** are all members of the 8-kDa diagnostic antigen family. These are secreted proteins with a mature size of 66 or 67 amino acids. To date; 31, 8-kDa antigen DNA sequences have been identified. These 31 sequences encode 18 unique, but very similar, proteins. By BLAST analysis, these proteins have been identified as members of a cestode-specific hydrophobic, ligand binding family. Eight of the 8-kDa antigens, representing each of the four clades in the family, have been chemically synthesized and evaluated for reactivity with antibodies in an ELISA. The proteins at 24 and 42-kDa are membrane proteins. Both extract into the detergent phase of Tx114 and both share a common N-terminal sequence. Further protein sequencing is underway. The protein at 50-kDa is also a membrane protein, shown to be GPI-anchored. While the proteins at 24/42 and 50 are distinct and fall into two groups, they share the common feature of requiring correct disulfide bond formation for antigenic activity. GP50 has been expressed, in active form, in an insect expression system and is being further evaluated. Our goal is to develop an antigen cocktail, probably consisting of one or more of the 8-kDa proteins, plus GP50, plus the 24 and/or 42-kDa proteins, which has a sensitivity of 98% and a specificity of 100%.

L8 ANSWER 7 OF 38 CABA COPYRIGHT 2004 CABI on STN

ACCESSION NUMBER:	2002:118199 CABA
DOCUMENT NUMBER:	20023079658
TITLE:	Assessment of antibody responses to antigens of Mycobacterium tuberculosis and Cysticercus cellulosae in cerebrospinal fluid of chronic meningitis patients for definitive diagnosis as TBM/NCC by passive hemagglutination and immunoblot assays
AUTHOR:	Katti, M. K.
CORPORATE SOURCE:	Immunology Laboratory, Department of Microbiology, Sree Chitra Tirunal Institute for Medical Sciences and Technology, Thiruvanathapuram 695 011, India. mkk@sctimst.ker.nic.in; m_dhar15@yahoo.com.in
SOURCE:	FEMS Immunology and Medical Microbiology, (2002) Vol. 33, No. 1, pp. 57-61. 26 ref. Publisher: Elsevier Science B.V. Amsterdam ISSN: 0928-8244
PUB. COUNTRY:	Netherlands Antilles
DOCUMENT TYPE:	Journal
LANGUAGE:	English
ENTRY DATE:	Entered STN: 20020708 Last Updated on STN: 20020708

AB Tanned sheep erythrocytes stabilized with pyruvic aldehyde and glutaraldehyde, called double-aldehyde-stabilized cells, were used

to standardize passive haemagglutination assay (PHA) for detection of antibody responses to sonicate extract of M. tuberculosis and C. cellulosae [Taenia **solium**] soluble antigens. PHA was performed in the following groups of cerebrospinal fluid (CSF) samples: group I - chronic infections of the central nervous system with the possible diagnosis of tuberculous meningitis (TBM), tuberculoma and neurocysticercosis (NCC) (n=88), and group II - controls which included (a) non-infectious non-neurological conditions (n=30), (b) infectious neurological conditions (n=21) and (c) non-infectious neurological conditions (n=133). PHA could detect anti-mycobacterial antibodies at the sensitivity level of 80.76% with a specificity of 92.4% and anti-cysticercal antibodies with a sensitivity of 100% and specificity of 92.94%. However, in 6.33% (i.e. 14/221) of group I and group II (c) CSFs both anti-mycobacterial and anti-cysticercal antibodies were detected. Immunoblot analysis of CSFs derived from TBM patients reacted predominantly to 120-kDa, 96-kDa, 65-kDa, 38-kDa, 26-kDa, 23-**kDa**, 19-**kDa** and 12-**14**-**kDa** and 4-6-**kDa** antigens of M. tuberculosis sonicate extract (MTSE), whilst CSFs of proven NCC reacted to >110-kDa, 96-kDa, 80-kDa, 66-68-kDa, 52-kDa and 26-28-kDa antigens of porcine whole cyst sonicate extract (PCSE). On immunoblot analysis, some of the CSFs of TBM patients were PHA positive for both MTSE and PCSE showed antibody reactivity to 70-kDa and 10-kDa antigens of C. cellulosae. Similarly CSF antibody of some Guillain Barre syndrome and myeloradiculopathy patients reacted with cysticercal antigens. But per se no cross-reactivity between MTSE and anti-cysticercal antibodies and vice-versa were observed. However, findings of this study should alert laboratory personnel especially in endemic areas to be extra careful in interpretation of antibody detection results.

L8 ANSWER 8 OF 38 MEDLINE on STN DUPLICATE 5

ACCESSION NUMBER:	2002164527 MEDLINE
DOCUMENT NUMBER:	PubMed ID: 11896406
TITLE:	Frequency of serum anti-cysticercus antibodies in the population of a rural Brazilian community (Cassia dos coqueiros, SP) determined by Elisa and immunoblotting using Taenia crassiceps antigens.
AUTHOR:	Bragazza Lucia M; Vaz Adelaide J; Passos Afonso D C; Takayanagui Osvaldo M; Nakamura Paulo M; Espindola Noeli M; Pardini Alessandra; Bueno Edneia C
CORPORATE SOURCE:	Faculty of Pharmaceutical Sciences, Pontificia Universidade Catolica de Campinas, Campinas, SP, Brasil.
SOURCE:	Revista do Instituto de Medicina Tropical de Sao Paulo, (2002 Jan-Feb) 44 (1) 7-12. Journal code: 7507484. ISSN: 0036-4665.
PUB. COUNTRY:	Brazil
DOCUMENT TYPE:	Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:	English
FILE SEGMENT:	Priority Journals
ENTRY MONTH:	200206
ENTRY DATE:	Entered STN: 20020317 Last Updated on STN: 20020619 Entered Medline: 20020618

AB Considering the impact of cysticercosis on public health, especially

the neurologic form of the disease, neurocysticercosis (NC), we studied the frequency of positivity of anti-Taenia **solium** cysticercus antibodies in serum samples from 1,863 inhabitants of Cassia dos Coqueiros, SP, a municipal district located 80 km from Ribeirao Preto, an area considered endemic for cysticercosis. The 1,863 samples were tested by enzyme linked immunosorbent assay (ELISA) using an antigenic extract from Taenia crassiceps vesicular fluid (Tcra). The reactive and inconclusive ELISA samples were tested by immunoblotting. Of the 459 samples submitted to immunoblotting, 40 were strongly immunoreactive to the immunodominant **18** and **14 kD** peptides.
Considering the use of immunoblotting as confirmatory due to its high specificity, the anti-cysticercus serum prevalence in this population was 2.1%.

L8 ANSWER 9 OF 38 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 2001-202757 [20] WPIDS
DOC. NO. CPI: C2001-060194
TITLE: Composition for detecting larval Taenia **solium**, comprising isolated, synthetic or recombinant larval Taenia **solium** polypeptides that are immunoreactive with Taenia **solium** antibodies.
DERWENT CLASS: B04 C07 D16
INVENTOR(S): GREENE, R M; HANCOCK, K; TSANG, V C W; WILKINS, P P
PATENT ASSIGNEE(S): (USSH) US DEPT HEALTH & HUMAN SERVICES
COUNTRY COUNT: 94
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001010897	A2	20010215	(200120)*	EN	37

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000067562	A	20010305	(200130)
MX 2002001231	A1	20030701	(200366)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001010897	A2	WO 2000-US21173	20000803
AU 2000067562	A	AU 2000-67562	20000803
MX 2002001231	A1	WO 2000-US21173	20000803
		MX 2002-1231	20020201

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2000067562	A	Based on	WO 2001010897

MX 2002001231 A1 Based on WO 2001010897

PRIORITY APPLN. INFO: US 1999-147318P 19990805
AN 2001-202757 [20] WPIDS
AB WO 200110897 A UPAB: 20010410
NOVELTY - A composition comprising one or more isolated, synthetic or recombinant larval Taenia **solium** polypeptides (I), or its antigenic fragments, immunoreactive with T. **solium** antibodies, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an isolated nucleic acid molecule (II) encoding (I) comprising a sequence of 129, 74 or 73 amino acids, given in the specification, or having a sequence of 2153, 298, or 294 base pairs, given in the specification;

(2) detecting T. **solium** antibodies in a biological sample comprising combining the sample with (I), or antigenic fragments of (I) immunoreactive with T. **solium** antibodies and detecting the formation of a complex between (I) and antibodies; and

(3) diagnosing cysticercosis in a mammal comprising contacting a biological sample of the mammal with (I), or antigenic fragments of (I) immunoreactive with T. **solium** antibodies, and detecting the binding of the antibody present in the biological sample to a T. **solium** glycoprotein antigen, where detection indicates cysticercosis.

ACTIVITY - Immunostimulant; anthelmintic. No biological data is given.

MECHANISM OF ACTION - Vaccine.

USE - (I) is useful for diagnosing cysticercosis in a mammal. (I) is also useful for detecting T. **solium** antibodies in a biological sample (claimed). (I) is useful for reducing, possibly preventing, T. **solium** infection or transmission. (I) is useful in immunoassays for detecting T. **solium**. Nucleic acid (II) encoding (I) is useful as molecular probes or primers for detecting RNA and DNA involved transcription and translation of (I). (I) is also useful as a diagnostic kit to detect the presence and quantity of T. **solium** polypeptides in tissues and cells.

ADVANTAGE - (I) is suitable for diagnosing and monitoring T. **solium** infections in humans and animals, by a method that is inexpensive, sensitive, rapid and accurate, with little or no cross-reactivity. Diagnosis of cysticercosis or neurocysticercosis is carried out by a simple and sensitive method. T. **solium** having a long shelf life can be detected within a short assay time and stable reagents can be utilized in the field. The results could be interpreted without the use of instrumentation or special temperature conditions, which is optimal for use in underdeveloped countries were T. **solium** is often endemic.

Dwg.0/0

L8 ANSWER 10 OF 38 MEDLINE on STN DUPLICATE 6
ACCESSION NUMBER: 2001482990 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11526181
TITLE: Cysticercus antigens in cerebrospinal fluid samples from patients with neurocysticercosis.
AUTHOR: Pardini A X; Vaz A J; Dos Ramos Machado L; Livramento

J A
CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of Pharmaceutical Sciences, 05508-900 Sao Paulo, SP, Brazil.
SOURCE: Journal of clinical microbiology, (2001 Sep) 39 (9) 3368-72.
Journal code: 7505564. ISSN: 0095-1137.
PUB. COUNTRY: United States
DOCUMENT TYPE: (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 20010830
Last Updated on STN: 20020122
Entered Medline: 20011204

AB Antigens were detected in cerebrospinal fluid (CSF) samples from patients with neurocysticercosis (NC) by enzyme-linked immunosorbent assay (ELISA) using polyclonal sera of rabbit anti-Taenia **solium** cysticerci (anti-Tso) and anti- Taenia crassiceps cysticerci vesicular fluid (anti-Tcra or anti-Tcra <30 kDa). A group of NC patients (n = 174) were studied (NC), including 40 patients in different phases of the disease. ELISAs carried out with the anti-Tso, anti-Tcra, and anti-Tcra <30 kDa showed sensitivities of 81.2, 90, and 95.8% and specificities of 82, 98, and 100%, respectively. The **14**- and **18**-**kDa** low-molecular-weight peptides were only detected in CSF samples from patients with NC by immunoblotting with anti-Tso and anti-Tcra sera. Because of the importance of the diagnosis and prognosis of cysticercosis, the detection of antigens may contribute as an additional marker to the study and clarification of the parasite-host relationship.

L8 ANSWER 11 OF 38 MEDLINE on STN DUPLICATE 7
ACCESSION NUMBER: 2001685005 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11730787
TITLE: Sequence variation in the cytochrome oxidase I, internal transcribed spacer 1, and **Ts14** diagnostic antigen sequences of Taenia **solium** isolates from South and Central America, India, and Asia.
AUTHOR: Hancock K; Broughel D E; Moura I N; Khan A; Pieniazek N J; Gonzalez A E; Garcia H H; Gilman R H; Tsang V C
CORPORATE SOURCE: Division of Parasitic Diseases, Centers for Disease Control and Prevention, Bldg 23, Room 1001, Mail Stop F-13, 4770 Buford Highway, Atlanta, GA 30341, USA.. khancock@cdc.gov
SOURCE: International journal for parasitology, (2001 Dec) 31 (14) 1601-7.
Journal code: 0314024. ISSN: 0020-7519.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF158184; GENBANK-AF356355; GENBANK-AF356356; GENBANK-AF360865; GENBANK-AF360867; GENBANK-AF360868;

GENBANK-AF360869; GENBANK-AF360870; GENBANK-AF360871;
GENBANK-AF372552; GENBANK-AF372553; GENBANK-AF372554;
GENBANK-AF372555; GENBANK-AF372556; GENBANK-AF372557;
GENBANK-AF372558; GENBANK-AF372559; GENBANK-AF372560;
GENBANK-AF372561; GENBANK-AF372562; GENBANK-AF372563;
GENBANK-AF372564; GENBANK-AF372565; GENBANK-AF372566;
GENBANK-AF372567; GENBANK-AF372568; GENBANK-AF372569
ENTRY MONTH: 200205
ENTRY DATE: Entered STN: 20011204
Last Updated on STN: 20020508
Entered Medline: 20020507

AB We examined the genetic variability in the pig-human **tapeworm**, Taenia **solium**, by sequencing the genes for cytochrome oxidase I, internal transcribed spacer 1, and a diagnostic antigen, **Ts14**, from individual cysts isolated from Peru, Colombia, Mexico, India, China, and the Philippines. For these genes, the rate of nucleotide variation was minimal. Isolates from these countries can be distinguished based on one to eight nucleotide differences in the 396 nucleotide cytochrome oxidase I (COI) sequence. However, all of the 15 isolates from within Peru had identical COI sequences. The **Ts14** sequences from India and China were identical and differed from the Peru sequence by three nucleotides in 333. These data indicate that there is minimal genetic variability within the species T. **solium**. Minimal variability was also seen in the ITS1 sequence, but this variation was observed within the individual. Twenty-two cloned sequences from six isolates sorted into 13 unique sequences. The variability observed within the sequences from individual cysts was as great as the variability between the isolates.

L8 ANSWER 12 OF 38 MEDLINE on STN DUPLICATE 8
ACCESSION NUMBER: 2001638728 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11687454
TITLE: Serodiagnosis of human cysticercosis by using antigens from vesicular fluid of Taenia crassiceps cysticerci.
AUTHOR: Bueno E C; Snege M; Vaz A J; Leser P G
CORPORATE SOURCE: Laboratory of Clinical Immunology, Faculty of Pharmacy, University of the Vale do Itajai, Itajai SC.
SOURCE: Clinical and diagnostic laboratory immunology, (2001 Nov) 8 (6) 1140-4.
Journal code: 9421292. ISSN: 1071-412X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200201
ENTRY DATE: Entered STN: 20011107
Last Updated on STN: 20020128
Entered Medline: 20020125

AB Neurocysticercosis (NC), caused by the presence of Taenia **solium** metacestodes in tissues, is a severe parasitic infection of the central nervous system with universal distribution. To determine the efficiency of enzyme-linked immunosorbent assay (ELISA) and immunoblot with antigens of T. crassiceps vesicular

fluid (Tcra) compared to standard techniques (indirect immunofluorescence test [IFT] and complement fixation test [CFT]) using T. **solium** cysticerci (Tso) for the serodiagnosis of NC, we studied serum samples from 24 patients with NC, 30 supposedly healthy individuals, 76 blood bank donors, 45 individuals with other non-NC parasitoses, and 97 samples from individuals screened for cysticercosis serology (SC). The sensitivity observed was 100% for ELISA-Tso and ELISA-Tcra, 91.7% for the IFT, and 87.5% for the CFT. The specificity was 90% for ELISA-Tso, 96.7% for ELISA-Tcra, 50% for IFT, and 63.3% for CFT. The efficiency was highest for ELISA-Tcra, followed by ELISA-Tso, IFT, and CFT. Of the 23 samples from SC group, which were reactive to ELISA-Tso and/or ELISA-Tcra, only 3 were positive to immunblot-Tcra (specific peptides of **14**- and **18-kDa**) and to glycoprotein peptides purified from Tcra antigen (gp-Tcra), showing the low predictive value of ELISA for screening. None of the samples from the remaining groups showed specific reactivity in immunoblot-Tcra. These results demonstrate that ELISA-Tcra can be used as a screening method for the serodiagnosis of NC and support the need for specific tests for confirmation of the results. The immunoblot can be used as a confirmatory test both with Tcra and gp-Tcra, with the latter having an advantage in terms of visualization of the results.

L8 ANSWER 13 OF 38 MEDLINE on STN DUPLICATE 9

ACCESSION NUMBER: 2001297919 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11378200
TITLE: The role of N-linked carbohydrates in the antigenicity of Taenia **solium** metacestode glycoproteins of 12, 16 and **18 kD**
.
AUTHOR: Obregon-Henao A; Gil D L; Gomez D I; Sanzon F; Teale J M; Restrepo B I
CORPORATE SOURCE: Molecular Parasitology Group, Corporacion para Investigaciones Biologicas, Cra. 72A, No. 78, Medellin, Colombia.
CONTRACT NUMBER: NS 35974 (NINDS)
TW00953 (FIC)
SOURCE: Molecular and biochemical parasitology, (2001 May) 114 (2) 209-15.
Journal code: 8006324. ISSN: 0166-6851.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF257776; GENBANK-AF350070
ENTRY MONTH: 200108
ENTRY DATE: Entered STN: 20010806
Last Updated on STN: 20010806
Entered Medline: 20010802

AB The glycoproteins of 12-28 kD from Taenia **solium** metacestodes provide a high specificity and sensitivity for the serological diagnosis of the central nervous system infection, neurocysticercosis. Their widespread use as antigens for routine serological assays will require their production in large and reproducible amounts. Prior to determining the ideal strategy to produce these antigens at a large scale, it is important to

determine the contribution of the carbohydrates to the antigenicity of these molecules, given the uncertainty of reproducing saccharidic epitopes in recombinant expression systems. In this study we examined this issue. The chemical oxidation of the carbohydrates of the 12-28 kD glycoproteins with sodium metaperiodate, reduced the antigenicity of the molecules to variable extents, with the more notable changes being detected for the **18** and 28 **kD** antigens. This approach was complemented by purification of the 12, 16 and **18 kD** antigens, followed by the enzymatic deglycosylation of their abundant N-linked oligosaccharides. Silver-stained SDS-PAGE analysis indicated that the three deglycosylated antigens now migrated as 7 kD products, suggesting a protein backbone with a similar size, but different extents of glycosylation. By Western blot, the antigenicity of these antigens was diminished. This was more notable for the **18 kD** antigen, which is more heavily glycosylated than the 12 or 16 kD glycoproteins. These data suggest that the antigenicity of the glycoproteins of T. **solium** is due to a combination of carbohydrate and protein epitopes.

L8 ANSWER 14 OF 38 CABA COPYRIGHT 2004 CABI on STN

ACCESSION NUMBER:	2002:88567 CABA
DOCUMENT NUMBER:	20013044363
TITLE:	Enzyme-linked immunoelectrotransfer blot assay (EITB) for detecting IgG and IgG4 antibody in serum of human neurocysticercosis
AUTHOR:	Wu Jing; Li YaJie; Liu Ping; Wang Hui; Wu, J.; Li, Y. J.; Liu, P.; Wang, H.
CORPORATE SOURCE:	Department of Parasitology, Harbin Medical University Harbin, 150086, China.
SOURCE:	Acta Parasitologica et Medica Entomologica Sinica, (2001) Vol. 8, No. 1, pp. 13-18. 7 ref. Publisher: Institute of Microbiology and Epidemiology. Beijing ISSN: 1005-0507
PUB. COUNTRY:	China
DOCUMENT TYPE:	Journal
LANGUAGE:	English
SUMMARY LANGUAGE:	Chinese
ENTRY DATE:	Entered STN: 20020607 Last Updated on STN: 20020607

AB Total IgG and IgG4 subclass antibodies were investigated in sera of 4 groups of neurocysticercosis (Taenia **solium**) patients. The first group consisted of parasitologically and clinically confirmed patients before treatment. The second, third and fourth groups comprised treated patients after 1-3, 4-6 and 7-9 therapeutic courses respectively (each therapeutic course lasted 10-14 days). 241 serum samples from these four groups were tested by EITB using lentil-lectin affinity-purified antigens. 36 sera from healthy individuals were used as negative controls. We also tested 27 sera from patients with echinococcosis and clonorchiasis. Compared to negative controls the total IgG and IgG4 subclass antibody levels in the four different groups were respectively 96.3 and 97.5% for the 1st group; 93.3 and 78.6% for the 2nd; 88.0 and 38.0% for the 3rd; 86.1 and 13.9% for the 4th. There was no significant difference for

the total IgG among these four groups (P>0.01). In contrast, the levels of IgG4 antibodies in the post-treatment patients were lower than that of the pre-treatment patients. The positive rate of IgG4 antibody in symptomatic post-treatment patients was 77.0%, but in asymptomatic post-treatment patients it was only 21.3% (P<0.001). None of the antigens recognized by IgG was unique to the four groups. GP42 and GP24 were the most common bands recognized by many patients for IgG, but in the latter two groups, IgG4 distinctively recognized low molecular weight antigen of **18 kDa** and 13 **kDa**. The 36 sera from healthy individuals were all negative. The positive rate of total IgG antibody in 27 sera from heterologous infections was 7.5%; in contrast, these sera were all negative for IgG4.

L8 ANSWER 15 OF 38 MEDLINE on STN DUPLICATE 10
ACCESSION NUMBER: 2001077753 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11128471
TITLE: Taenia **solium**: molecular cloning and serologic evaluation of **14**- and **18** -**kDa** related, diagnostic antigens.
AUTHOR: Greene R M; Hancock K; Wilkins P P; Tsang V C
CORPORATE SOURCE: Department of Cellular Biology, University of Georgia, Athens, USA.
CONTRACT NUMBER: 1-U-19-A145431-01
5-T32-A107322
SOURCE: Journal of parasitology, (2000 Oct) 86 (5) 1001-7.
Journal code: 7803124. ISSN: 0022-3395.
PUB. COUNTRY: United States
DOCUMENT TYPE: (EVALUATION STUDIES)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF082828; GENBANK-AF082829; GENBANK-AF082830; GENBANK-AF098073; GENBANK-AF098074; GENBANK-AF098075; GENBANK-AF158184
ENTRY MONTH: 200101
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010111

AB We are attempting to design a simpler assay based on synthetic or recombinant antigens to replace the labor-intensive enzyme-linked immunoelectrotransfer blot (EITB-C), which is currently used to diagnose Taenia **solium** cysticercosis. From the lentil lectin-bound fraction of cyst glycoproteins (the LLGP fraction used in the EITB-C), we previously identified and purified 2 related polypeptides of **14**- and **18-kDa** that demonstrated diagnostic usefulness. Using degenerate oligonucleotide primers corresponding to amino acid sequences of these polypeptides and a cDNA library prepared from T. **solium** cysticerci, we amplified cDNA clones that represent the **14**- and **18-kDa** polypeptides. These clones share sequence homology at the nucleotide and amino acid levels. Synthetic polypeptides that represented the full-length, mature proteins (sTS14 and sTS18) were assessed for serologic potential using an ELISA. sTS14, but not sTS18, demonstrated utility as a diagnostic antigen. sTS14 was recognized

by antibodies in a majority of the sera from patients with cysticercosis and none of the sera from persons with other helminth infections or uninfected human sera. Furthermore, polyclonal antibodies to sTS14 reacted with 6 discrete proteins present in the LLGP cyst fraction, suggesting that **TS14** is a subunit of other previously described antigens used for diagnosing cysticercosis.

L8 ANSWER 16 OF 38 MEDLINE on STN DUPLICATE 11
ACCESSION NUMBER: 2000402134 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10929145
TITLE: ELISA and western blotting tests in the detection of IgG antibodies to Taenia **solium** metacestodes in serum samples in human neurocysticercosis.
AUTHOR: Shiguekawa K Y; Mineo J R; de Moura L P; Costa-Cruz J M
CORPORATE SOURCE: Department of Immunology, Microbiology and Parasitology, Federal University of Uberlandia, Uberlandia, Brazil.
SOURCE: Tropical medicine & international health : TM & IH, (2000 Jun) 5 (6) 443-9.
Journal code: 9610576. ISSN: 1360-2276.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200008
ENTRY DATE: Entered STN: 20000901
Last Updated on STN: 20000901
Entered Medline: 20000822

AB A comparative study of total saline extract (SE) and cyst vesicular fluid (VF) of Taenia **solium** metacestodes by ELISA and Western blotting assay (WB) tests was conducted to detect IgG in sera for diagnosis of human cysticercosis. Sera were obtained and analysed by ELISA in 1 : 20 and 1 : 100 dilutions from 208 individuals: 22 confirmed neurocysticercosis (NC) (group 1), 101 suspected NC (group 2), 55 with various intestinal parasitosis (group 3) and 30 healthy individuals (group 4). The WB test was carried out on SE and VF extracts with and without reducing agent, 2-beta-mercaptoethanol (2-ME) in 20 sera of each group. WB using extracts without 2-ME and ELISA at 1 : 100 dilution were compared in 20 sera from each group; sensitivity and specificity were calculated using samples from groups 1, 3 and 4. By ELISA, in the 1 : 100 sera dilution reactivity was reduced for both antigens without changes in the sensitivity of the test. By WB, antigens treated with 2-ME demonstrated low specificity. For SE and VF antigens, the proteins of 24, 39-42, 47-52, 56, 64-68, 126-155 **kDa** and **18**
, 24, 26-28, 32-36, 47-52, 75 kDa, respectively, were considered immunodominant markers, with high indices of specificity, suggesting a profile for NC patients. However, as the sensitivity was found to be low, it might still not be a definitive test for NC when used alone. These data suggest WB as an indicative test to determine exposure to T. **solium**. ELISA and WB together may supply reliable results for the diagnosis of human cysticercosis, since appropriate purified antigens are not available yet.

L8 ANSWER 17 OF 38 MEDLINE on STN DUPLICATE 12
ACCESSION NUMBER: 2000398809 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10887380
TITLE: Production of monoclonal antibodies anti-Taenia crassiceps cysticerci with cross-reactivity with Taenia **solium** antigens.
AUTHOR: Espindola N M; De Gaspari E N; Nakamura P M; Vaz A J
CORPORATE SOURCE: Faculdade de Ciencias Farmaceuticas, Universidade de Sao Paulo, Sao Paulo, SP, Brasil.
SOURCE: Revista do Instituto de Medicina Tropical de Sao Paulo, (2000 May-Jun) 42 (3) 175-7.
Journal code: 7507484. ISSN: 0036-4665.
PUB. COUNTRY: Brazil
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200008
ENTRY DATE: Entered STN: 20000824
Last Updated on STN: 20000824
Entered Medline: 20000815

AB We describe the production of the potential monoclonal antibodies (MoAbs) using BALB/c mice immunized with vesicular fluid (VF)-Tcra (T. crassiceps) antigen. Immune sera presented anti-VF-Tcra (<20kD) IgG and IgM antibodies with cross-reactivity with T. **solium** (Tso) antigen (8-12, **14**, and **18 kD**). After cell fusion, we selected 33 anti-Tcra and anti-Tso reactive IgM-clones and 53 anti-Tcra specific IgG-clones, 5 of them also recognizing Tso antigens. Two clones identified the 8-14 and **18kD** peptides of VF-Tcra.

L8 ANSWER 18 OF 38 MEDLINE on STN
ACCESSION NUMBER: 2002097355 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11826516
TITLE: [Immunodiagnosis of neurocysticercosis: comparative study of antigenic extracts from Cysticercus cellulosae and Taenia crassiceps]. Inmunodiagnostico de la neurocisticercosis: estudio comparativo de extractos antigenicos de Cysticercus cellulosae y Taenia crassiceps.
AUTHOR: Rossi N; Rivas I; Hernandez M; Urdaneta H
CORPORATE SOURCE: Instituto de Inmunologia Clinica, Universidad de los Andes, Merida, Venezuela.
SOURCE: Revista cubana de medicina tropical, (2000 Sep-Dec) 52 (3) 157-64.
Journal code: 0074364. ISSN: 0375-0760.
PUB. COUNTRY: Cuba
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Spanish
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200208
ENTRY DATE: Entered STN: 20020206
Last Updated on STN: 20020827
Entered Medline: 20020826

AB Different antigenic extracts of Taenia **solium** and Taenia crassiceps were evaluated in connection with the detection of

antibodies in patients with neurocysticercosis aimed at selecting immunorelevant antigens for the diagnosis of neurocysticercosis by means of the immunoenzymatic assay and immunoblotting. The vesicular fluid of T. crassiceps proved to be more sensitive (100%) and specific (86%). On using the immunoblotting technique it was also observed that this extract was the most sensitive and specific. Within the protein profile of the antigen the band of **18 kDa** was mostly recognized by the serum and cerebrospinal fluid of patients with neurocysticercosis. The vesicular fluid of T. crassiceps represents an alternative in the optimization of the diagnosis of neurocysticercosis in the serum and cerebrospinal fluid and in the substitution of T. **solium** antigens due to its high sensitivity and specificity and to its easy obtention under controlled laboratory conditions.

L8 ANSWER 19 OF 38 MEDLINE on STN DUPLICATE 13
ACCESSION NUMBER: 1999270314 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10340489
TITLE: Diagnostic glycoproteins of Taenia **solium** cysts share homologous **14**- and **18** -**kDa** subunits.
AUTHOR: Greene R M; Wilkins P P; Tsang V C
CORPORATE SOURCE: Department of Cellular Biology, University of Georgia, Athens, USA.. rxg3@cdc.gov
CONTRACT NUMBER: 1-U01A135894-01
5-T32-A107322
SOURCE: Molecular and biochemical parasitology, (1999 Apr 30) 99 (2) 257-61.
Journal code: 8006324. ISSN: 0166-6851.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF082828; GENBANK-AF082829; GENBANK-AF082830
ENTRY MONTH: 199907
ENTRY DATE: Entered STN: 19990727
Last Updated on STN: 19990727
Entered Medline: 19990712

L8 ANSWER 20 OF 38 CABA COPYRIGHT 2004 CABI on STN
ACCESSION NUMBER: 1999:76320 CABA
DOCUMENT NUMBER: 19990804338
TITLE: An experimental study on the fusion proteins of Cysticercus cellulosae by fluid culture and expression
AUTHOR: Wang Min; Wang KaiHui; Li YaJie; Xu ZhiJie; Wang, M.; Wang, K. H.; Li, Y. J.; Xu, Z. J.
CORPORATE SOURCE: Department of Parasitology, Harbin Medical University, Harbin 150086, China.
SOURCE: Acta Parasitologica et Medica Entomologica Sinica, (1999) Vol. 6, No. 1, pp. 31-34. 9 ref.
ISSN: 1005-0507
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 19990609
Last Updated on STN: 19990609

AB Recombinant proteins of Cysticercus cellulosae [Taenia **solium** metacestodes] antigens of 28, **18**, **14** and 34 **kDa** were produced. When tested by Dot-ELISA, the recombinant protein of **18 kDa** gave the best results. The positive rate was highest when all 4 proteins were used in equal proportion. Compared with crude antigen (by ELISA and IHA) the recombinant proteins were were highly specific and more sensitive.

L8 ANSWER 21 OF 38 DISSABS COPYRIGHT (C) 2004 ProQuest Information and Learning Company; All Rights Reserved on STN

ACCESSION NUMBER: 1999:42668 DISSABS Order Number: AAI9920032
TITLE: CHARACTERIZATION AND MOLECULAR CLONING OF DIAGNOSTIC POLYPEPTIDES OF TAENIA **SOLIUM** (CYSTICERCOSIS, IMMUNOBLOT ASSAYS)
AUTHOR: GREENE, RYAN MERRILL [PH.D.]; TSANG, VICTOR C. W. [adviser]
CORPORATE SOURCE: UNIVERSITY OF GEORGIA (0077)
SOURCE: Dissertation Abstracts International, (1998) Vol. 60, No. 2B, p. 490. Order No.: AAI9920032. 76 pages.
DOCUMENT TYPE: Dissertation
FILE SEGMENT: DAI
LANGUAGE: English

AB <italic>Taenia **solium**</italic> cysticercosis is an important human disease that has serious implications for public health and the economy of many developing nations. While a 98% sensitive and 100% specific enzyme-linked immunoelectrotransfer blot (EITB) currently exists to diagnose this disease, we are attempting to design a simpler assay based on synthetic antigens. We partially purified the diagnostic glycoproteins of the EITB into discrete fractions by preparative gel electrophoresis. Reduction with dithiothreitol (DTT) demonstrated that all proteins in the 20- to 50-kDa range are composed of at least two subunits, of **14**- and **18-kDa**, and the larger proteins also contain a **21-kDa** subunit. The **14**- and **18-kDa** subunits were shown to share extensive sequence identity, both at the N-terminus and within the peptide chain. We examined the immunoreactivity of the more reactive **14-kDa** subunit and found that it was recognized by antibodies from 100% of patients with parasitologically confirmed neurocysticercosis. Overall, reactivity to the **14-kDa** subunit was 77% concordant with the EITB in detecting anti-cysticercosis antibodies and was 100% specific for cysticercosis. Using degenerate oligonucleotide primers corresponding to known amino acid sequence of these subunits, we amplified cDNA clones in a polymerase chain reaction (PCR) that represented the **14**- and **18-kDa** polypeptides and a third related sequence from a cDNA library prepared from <italic>T. **solium**</italic> cysticerci. The translated amino acid sequences of the three clones share significant sequence homology and encode 3 different polypeptides with predicated molecular weights of approximately 8-**kDa**. The **14**- and **18-kDa** cDNA sequences were subcloned into the plasmid pET-32 and were expressed as 28-kDa